

APPENDICES

Appendix 1. Geologic Core Logs of the Drillings

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay							
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosene kg/m ³	Another kg/m ³	
Q1	0			Pebble-gravel deposits								
	6.50											
N1 ² ar	10			Greenish gray dense caly w/Mn oxide, Fe oxide								
	20											
	21.50				Reddish brown dense clay Poor dust like ilmenite							
	23.50											
	24.00				Reddish brown clay w/ilmenite w/Mn oxide, Fe ochre	34/12-1	24.00	2.36	0.03	Tr	Tr	0.05
	25.00					12-2	25.00	3.59	0.10	Tr	Tr	0.15
	26.00					12-3	26.00	197.27	2.82	Tr	Tr	2.17
	27.00					12-4	27.00	166.82	2.72	Tr	Tr	1.28
	28.00					12-5	28.00	270.65	4.64	Tr	Tr	1.95
	28.50					12-6	28.50	241.03	3.84	-	Tr	1.76
29.00			12-7	29.00		9.87	0.17	-	Tr	0.63		
30.00			12-8	30.00		9.15	0.14	-	Tr	0.10		
C2-3 mt	30	#	30.00	Redeposited crust of weathering Bottom of the hole								
	40											
	50											

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay								
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucaxene kg/m ³	Another kg/m ³		
Q _{n-m}	0	0-0	1.00	Dense loam w/Pebbles									
Q _i				Pebble-gravel deposits									
			7.50	Light gray dense clay									
	N _{i-2} ar				15.00m ~, w/Fe oxide								
					Poor dust like ilmenite								
				27.40	Clayey Sand w/ilmenite(3~5%)	25.40							
				33.00	Clayey Sand w/ilmenite(5~7%)	34/8-1	26.40	2.55	0.06	-	Tr	0.02	
				34.00	Clayey Sand w/ high concentrated ilmenite	8-2	27.40	3.88	0.08	Tr	Tr	0.03	
				36.60	Clayey Sand w/ high concentrated ilmenite	8-3	28.00	2.15	0.06	-	0.18	0.08	
						8-4	29.00	16.67	0.39	Tr	0.74	0.25	
						8-5	29.60	34.72	0.68	Tr	2.89	0.29	
						8-6	30.60	6.17	0.11	Tr	0.02	0.08	
						8-7	31.60	1.22	0.03	Tr	0.04	0.02	
					8-8	32.60	0.75	0.07	Tr	0.04	0.03		
					8-9	33.00	0.29	0.03	-	0.03	0.04		
					8-10	34.00	0.44	0.02	Tr	0.01	0.04		
					8-11	35.00	4.15	0.10	Tr	0.01	0.09		
					8-12	35.80	10.26	0.33	Tr	0.03	0.41		
					8-13	36.60	16.75	0.47	Tr	0.12	0.59		
					8-14	36.90	30.58	0.86	Tr	2.66	0.93		
					8-15	38.00	6.26	0.16	Tr	0.01	0.08		
				8-16	39.00	6.66	0.16	Tr	Tr	0.18			
				8-17	40.00	6.35	0.15	Tr	0.01	0.14			
				8-18	41.00	13.03	0.33	Tr	0.02	0.25			
				8-19	42.00	8.31	0.17	Tr	Tr	0.17			
C ₂₋₃ mt			42.00	Redeposited crust of weathering	8-20	43.00	13.73	0.23	Tr	0.03	0.23		
			44.00	Bottom of the hole	8-21	44.00	11.08	0.25	Tr	0.03	0.22		

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosane kg/m ³	Another kg/m ³
Qn-III	0			Soil Pebble-gravel deposits							
	7.40 8.00			Gray clay w/Mn oxide							
N ¹⁻² ar	10			Greenish gray dense clay w/Mn oxide, Fe oxide							
	18.00			Brown dense clay w/Mn oxide							
	21.60			Gray dense clay w/Mn oxide, Fe ochre							
	25.90			Gray dense clay w/Fe ochre							
	29.00			Gray Sandy clay Poor dust like ilmenite							
	30.70			Fng Sand w/ilmenite(5~10%)	30/32-1	30.00	0.55	0.01	Tr	Tr	0.01
	32.00			Clayey Sand w/ilmenite(15~20%) w/Fe ochre	32-2	31.00	9.84	0.24	Tr	Tr	0.13
					32-3	31.50	53.66	1.17	Tr	Tr	1.17
					32-4	32.00	60.27	0.73	Tr	0.13	1.03
					32-5	32.70	92.01	1.65	Tr	0.14	1.37
C ₂₋₃ mt	34.20			Redeposited crust of weathering	32-6	33.20	26.42	0.43	Tr	Tr	0.75
					32-7	34.20	44.06	0.52	Tr	Tr	0.52
					32-8	35.00	0.35	0.01	-	Tr	0.03
	37.00			Bottom of the hole	32-9	36.50	2.82	0.04	-	Tr	0.05
	40										
	50										

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay											
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucaxene kg/m ³	Another kg/m ³					
Q ₁	0			Pebbles-gravel deposits												
	10		10.00													
	N ₁₋₂ ar					Light gray-Greenish gray dense clay w/kaoline										
		20			22.00											
							Gray dense clay, partly brownish									
		30														
								Gray clay w/or dust like ilmenite (<1%)								
		33.50														
		34.50														
		35.20							Gray clay w/ilmenite (3~5%)							
36.50				Gray clay w/Fe oxide												
37.50			Gray clay w/ilmenite (0.5~1.0%)													
38.10					Gray clay w/ilmenite (>5%)											
38.90						Gray clay w/Fe oxide										
40							Gray clay w/ilmenite (>5%)									
41.20				Redeposited crust of weathering												
43.00			Bottom of the hole													
C ₂₋₃ mt																
	50															

M J B K - 2 2 (1) (1:200)
 (30/16)

ELEVATION : 467.34m
 COORDINATE: N 14, 635, 575.5 E 5, 399, 369.3

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Rosoxene kg/m ³	Another kg/m ³
Q ₁	0			Pebble-gravel deposits w/boulders (max. 4 × 10cm)							
			9.00								
N ₁ ² ar	10			Pale greenish gray dense clay							
			12.00								
			13.00		Brownish gray dense clay						
	20				Pale brownish gray dense clay						
				26.00							
					Pale gray dense clay						
30				Dark gray dense clay							
			30.50								
			32.00								
				Pale gray sandy clay							
			37.30								
				Sandy clay w/poor dust like ilmenite							
			39.00								
40				Fng Sand w/ilmenite							
			41.00								
				Light brown sandy clay							
			42.60								
				Brownish gray dense clay							
50											

M J B K - 2 2 (2) (1:200)
(30/16)

ELEVATION : 467.34m
COORDINATE: N 14,635,575.5 E 5,399,369.3

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucorane kg/m ³	Another kg/m ³
N ¹⁻² ar	50			Brownish gray dense clay							
	C _{2,3} mt	58.00	#			Redeposited crust of weathering					
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		65.00									
	70										
	80										
	90										
	100										

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucromene kg/m ³	Another kg/m ³
Q ₁ -II	0			Pebble-gravel deposits							
	10		10.00								
N ₁ ² ar	20			Greenish gray dense clay w/Mn oxide, Fe oxide							
	30										
	31.00			Dark gray clay w/Fe oxide							
	32.10										
				Light gray sandy clay w/ilmenite(~3%)		35.00					
					30/12-1	36.00	3.60	0.09	Tr	0.01	0.06
				Light gray clayey Sand w/ilmenite(5~7%)							
	38.00				12-2	37.00	3.92	0.04	-	0.01	0.09
	40.00				12-3	38.10	55.48	1.66	Tr	0.21	1.66
					12-4	39.30	176.57	3.01	Tr	0.11	3.01
					12-5	40.00	151.68	2.26	Tr	0.17	2.26
					12-6	41.00	55.61	0.92	Tr	0.19	0.92
					12-7	42.00	31.23	0.24	-	Tr	0.24
				Ligt gray dense clay							
	50										

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay							
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosane kg/m ³	Another kg/m ³	
N ¹² ar	50											
				Gray dense clay w/poor-dust like Ilmenite								
	60		60.00	End of the hole								
	70											
	80											
	90											
	100											

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay							
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosene kg/m ³	Another kg/m ³	
Q1	0			Pebble-gravel deposits								
	8.00											
N1-2 ar	10			Greenish gray dense clay w/Mn oxide								
	20											
	25.00											
	30				Dark gray dense clay							
	34.50											
	36.50				Sandy clay w/ilmenite (~1%)	30/8-1	35.50	1.41	0.04	Tr	Tr	0.11
	38.50					8-2	36.50	1.45	0.03	Tr	Tr	0.15
	39.50				Brownish gray clay w/Fn ochre	8-3	37.50	5.92	0.22	Tr	0.01	0.17
	39.50					8-4	38.50	30.54	1.05	Tr	0.05	0.51
	40				Sandy clay w/ilmenite (5~7%)	8-5	39.50	15.68	0.30	Tr	Tr	0.20
	42.10					8-6	40.80	17.08	0.45	Tr	Tr	0.41
					Brownish gray dense clay	8-7	42.10	119.46	2.10	-	Tr	0.86
			8-8	43.00		0.71	0.01	Tr	Tr	0.01		
			8-9	44.00		0.75	0.01	Tr	Tr	0.02		
50												

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Residual kg/m ³	Another kg/m ³
N ₁ ² ar	50			Brownish gray dense clay		53.50					
					30/8-10	54.50	2.01	0.07	Tr	Tr	0.26
			55.50	Clayey Sand w/ilmenite(3~5%)	8-11	55.50	10.77	0.56	Tr	Tr	0.61
			56.20		8-12	56.20	113.66	2.54	Tr	0.10	1.46
					8-13	57.00	23.88	0.61	-	Tr	0.61
C ₂₋₃ mt		#		Redeposited crust of weathering End of the hole	8-14	58.00	8.91	0.20	Tr	Tr	0.20
		#	58.00								
	60										
	70										
	80										
	90										
	100										

M J B K - 2 5
(26/34)

(1:200)

ELEVATION : 462.79m

COORDINATE: N 14,637,731.6 E 5,398,712.1

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay								
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Residuals kg/m ³	Another kg/m ³		
Q ₁	0			Pebble-gravel deposits w/boulders(max. 4 × 10cm)									
	10		10.00										
	N ₁₋₂ ar				13.00	Pale brownish gray clay							
					17.50	Pale greenish gray clay							
					18.50	Pale brown clay							
					20								
C ₂₋₃ mt			32.00	Pale yellowish gray dense clay w/Fe ochre									
			33.50	Pale-dark gray dense clay w/Fe ochre		33.50							
			34.50	Sandy clay w/poor dustlike ilmenite	26/34-1	34.50	0.55	0.01	-	tr	0.01		
			35.50		26/34-2	35.50	0.17	0.00	-	0.00	0.01		
			36.00		26/34-3	36.00	0.15	0.00	-	tr	0.01		
			37.00	Clayey Sand w/ilmenite(1~3%)	26/34-4	37.00	2.36	0.05	-	0.01	0.07		
			38.00		26/34-5	38.00	29.90	0.70	tr	0.04	0.48		
			39.50	Clayey Sand w/ilmenite(20~30%)	26/34-6	39.50	90.33	1.86	tr	0.23	1.16		
	40	#		26/34-7	40.50	1.52	0.07	-	0.01	0.13			
		#		26/34-8	41.50	0.87	0.02	-	0.01	0.02			
		#	43.00	Redeposited crust of weathering									
	50												

M J B K - 2 6
(26/30)

(1:200)

ELEVATION : 462.94m
COORDINATE: N 14, 636, 085. 3 E 5, 398, 723. 6

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay													
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Raucoconing kg/m ³	Another kg/m ³							
Q1	0			Dense loam w/Pebbles														
				Pebble-gravel deposits														
N1 ² ar	10			Pale greenish gray dense clay														
			9.00	Olive dense clay														
			15.00 16.00	Pale gray dense clay														
C2-3md	20			Gray dense clay														
			28.50	Pale gray dense clay														
			31.90 33.00	Brownish gray dense clay														
			35.00	Pale gray dense clay														
			36.50	Blueish gray clayey Sand														
			38.00	Clayey Sand w/ilmenite (3~5%)														
			40.30	Redeposited crust of weathering														
			48.70	50.00m, end of the hole														
			50.00															
						25/30-1	36.00	0.67	0.02	tr	0.01	0.10						
						30-2	37.00	6.66	0.15	-	0.02	1.38						
						30-3	38.00	3.06	0.08	tr	0.01	0.07						
						30-4	39.00	96.92	1.86	tr	0.25	1.37						
						30-5	40.00	73.39	1.49	tr	0.13	0.84						
						30-6	40.50	204.80	4.15	tr	0.25	2.09						
						30-7	41.50	36.25	0.68	tr	0.11	0.68						
						30-8	42.00	3.86	0.08	-	0.01	0.10						
					30-9	43.00	9.34	0.14	-	0.02	0.30							
					30-10	44.00	45.42	0.97	-	0.08	1.04							
					30-11	45.00	67.75	1.26	tr	0.15	0.96							
					30-12	46.00	97.28	1.92	-	0.24	1.68							
					30-13	47.00	146.26	2.33	-	0.26	2.33							
					30-14	48.00	169.40	2.16	tr	0.19	2.29							
					30-15	48.70	62.44	1.17	-	tr	1.50							
					30-16	49.50	0.53	0.03	-	tr	0.25							
					30-17	50.00	1.10	0.04	-	tr	0.16							

M J B K - 2 7
(26/26)

(1:200)

ELEVATION : 462.99m



COORDINATE: N 14, 635, 890.3 E 5,398,771.6

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay													
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Residuals kg/m ³	Another kg/m ³							
Q ₁	0			Dense loam w/Pebbles														
			9.00	Pebble-gravel deposits w/boulders (max. 4 × 10cm)														
N ₁₋₂ ar	10																	
			20	Greenish gray dense clay w/Fe ochre														
			30															
			31.50	Dark gray dense clay														
			33.50															
			37.00	Fng Sand w/poor dust like ilmenite	26-26	34.00	0.26	0.01	-	0.02	0.02							
					26-2	35.00	0.66	0.03	-	tr	0.73							
					26-3	36.00	7.36	0.24	-	tr	0.44							
					26-4	37.00	17.49	0.54	tr	0.14	0.41							
					26-5	38.00	1.13	0.05	-	0.04	0.05							
					26-6	39.00	40.27	0.94	tr	0.28	0.47							
					26-7	40.00	102.02	2.10	tr	0.23	1.64							
					26-8	41.00	87.56	2.17	tr	0.48	1.68							
					26-9	42.00	68.46	1.18	-	0.20	1.58							
					26-10	43.00	98.89	1.91	tr	0.55	1.36							
					26-11	44.00	99.05	1.30	tr	tr	1.30							
					26-12	44.50	126.14	1.47	tr	0.39	1.08							
					26-13	45.00	4.73	0.07	-	0.02	0.13							
				26-14	46.00	13.26	0.24	tr	0.05	0.44								
				26-15	47.00	41.10	0.87	tr	0.17	1.22								
				26-16	48.00	198.82	3.09	tr	0.51	2.91								
				26-17	49.00	2.74	0.14	-	0.03	0.58								
				26-18	50.00	2.20	0.07	-	0.03	0.24								
C ₂₋₃ ml	50			End of the hole														

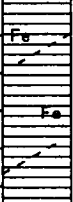

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay							
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reagents kg/m ³	Another kg/m ³	
Q1	0			Pebble-gravel deposits								
	8.00											
N1-2 ar	10			Dark greenish gray clay w/Fe oxide								
	20											
N1-2 ar	30			Dark greenish gray clay w/Fe oxide								
	40											
N1-2 ar	43.50			Dark bluish gray fng-mdg sand w/ilmenite(7~10%)		41.50						
	48.20				26/22-1	42.50	6.45	0.13	-	0.04	0.21	
N1-2 ar	48.50			Clayey sand w/ilmenite(20~25%)								
	48.50				22-2	43.50	2.72	0.04	Tr	Tr	0.06	
N1-2 ar				Yellowish gray sandy clay								
	50				22-3	44.20	126.22	2.02	Tr	Tr	2.52	
					22-4	45.00	172.43	2.94	Tr	0.27	3.74	
					22-5	46.00	77.65	1.72	Tr	0.64	2.15	
					22-6	47.00	103.24	2.06	Tr	0.73	3.03	
					22-7	48.20	130.56	2.34	-	0.67	1.67	
					22-8	48.50	137.34	2.41	Tr	0.36	1.88	
					22-9	49.50	0.30	0.06	-	Tr	0.06	
					22-10	50.50	1.14	0.01	-	0.01	0.01	

M J B K - 2 8 (2) (1:200)
(26/22)

ELEVATION : 462.83m
COORDINATE: N 14,635,693.4 E 5,398,814.6

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosene kg/m ³	Another kg/m ³
C ₂₃ mt Ni ²⁺ ar	50			Yellowish gray sandy clay							
			51.50								
		# # #		54.00	Redeposited crust of weathering						
				End of the hole							
	60										
	70										
	80										
	90										
	100										

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Raucoane kg/m ³	Another kg/m ³
Q ₁	0			Pebble-gravel deposits							
	9.00										
N ₁₋₂ ar	10			Greenish gray dense clay w/Fe oxide							
	20.6-21.5m				20.6-21.5m Sandy clay - fng sand						
	27.50			Dark gray dense clay							
	42.50										
	44.00				Clayey Sand - fng sand w/ilmenite(~10%)						
	46.50			Brownish gray dense clay							
	48.00			Clayey Sand w/ilmenite(2~5%)							
	50			Yellowish brown dense clay							
					26/18-1	41.50	5.86	0.10	Tr	0.01	0.09
					18-2	42.50	2.33	0.04	Tr	0.03	0.05
					18-3	43.00	55.58	1.31	Tr	0.30	1.11
				18-4	43.50	282.23	4.81	Tr	0.64	3.52	
				18-5	44.00	224.26	3.35	Tr	1.00	0.67	
				18-6	45.20	26.04	0.53	Tr	0.04	0.32	
				18-7	46.50	24.70	0.48	Tr	0.02	0.34	
				18-8	47.20	124.07	2.27	Tr	0.13	1.77	
				18-9	48.00	231.35	4.18	Tr	0.32	3.21	
				18-10	49.00	2.24	0.05	Tr	0.02	0.05	
				18-11	50.00	2.78	0.05	Tr	0.01	0.09	

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay					
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucrone kg/m ³	Another kg/m^{3}
N ₁₋₂ ar	50			Yellowish brown dense clay w/Fe oxide						
			55.80							
C ₂₋₃ mt				Redeposited crust of weathering						
			58.00	End of the hole						
	60									
	70									
	80									
	90									
	100									

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Raucoene kg/m ³	Another kg/m ³
QI	0			Pebble-gravel deposits							
			8.00								
	10			Greenish brown dense clay w/Mn oxide							
			11.30								
				Greenish gray dense clay w/Fe ochre							
			19.60								
	20			Light greenish gray clay							
			23.50								
N ¹² ar				Light-dark gray dense clay							
			30.00								
				Greenish gray dense clay w/Fe ochre							
			37.50								
				Greenish gray dense clay poor dust-like ilmenite (~1%)		38.50					
			39.50								
	40			Greenish gray sandy clay w/ilmenite (~5%)	26/14-1	39.50	7.02	0.11	Tr	0.02	0.11
			41.00								
				Light gray clayey sand w/ilmenite (20~30%)	14-2	40.50	4.08	0.06	Tr	0.01	0.03
			43.50								
				Dark brown dense clay w/Fe ochre	14-3	41.00	157.10	2.68	Tr	0.53	1.02
			45.50								
				Dark gray dense clay	14-4	41.60	333.05	4.40	Tr	0.66	4.18
			49.40								
	50			Light brownish gray dense clay w/Fe ochre	14-5	43.00	185.12	2.68	Tr	0.54	1.07
					14-6	43.50	126.40	1.59	Tr	0.35	1.59
					14-7	44.50	2.56	0.04	-	0.01	0.09
					14-8	45.50	1.21	0.02	-	0.01	0.03

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucorone kg/m ³	Another kg/m ³
N ₁₋₂ ar	50	Fe		Light brownish gray dense clay w/Fe ochre							
		Fe									
C ₂₋₃ mt			56.30	Poor dust-like ilmenite (<0.5%)							
		#		Redeposited crust of weathering							
		#									
	60	#	60.00	End of the hole							
	70										
	80										
	90										
	100										

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay							
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosene kg/m ³	Another kg/m ³	
Q1	0			Dense loam w/Pebbles								
				Pebble-gravel deposits w/boulders (max. 4 x 10cm)								
	10		10.00									
				Light greenish gray dense clay w/Fe ochre								
			18.00									
			18.00		Light brown clay							
	20											
				Light gray dense clay								
			29.50									
	N1 ² ar			31.50		Yellowish gray dense clay						
				Light greenish gray dense clay								
			37.00									
			37.00			22/30-1	38.00	0.25	0.01	-	tr	0.01
			39.50			30-2	39.00	0.39	0.00	-	tr	0.04
			39.50			30-3	39.50	2.18	0.05	-	tr	0.08
			40.00			30-4	40.00	23.71	0.67	tr	0.10	0.58
			41.00		Light bluish gray sandy clay w/ilmenite (3~5%)	30-5	41.00	25.92	0.61	tr	0.11	0.50
			41.50			30-6	41.50	28.87	0.82	tr	0.10	0.53
			42.00			30-7	42.00	36.17	1.00	tr	0.22	0.45
			43.00		Silt Sand w/ilmenite (3~5%)	30-8	43.00	9.51	0.20	tr	tr	0.30
			44.30			30-9	44.30	81.77	1.24	tr	0.18	1.24
			45.00		Yellowish sandy clay w/ilmenite (3~5%)	30-10	45.00	31.37	0.57	-	0.11	0.79
						30-11	46.00	7.57	0.23	-	0.05	0.28
			47.00		Fng Sand w/ilmenite (15~20%)	30-12	47.00	131.55	2.78	tr	0.38	1.64
			47.50			30-13	47.50	101.98	1.47	-	0.32	1.37
			48.00			30-13a	48.00	202.88	2.13	-	tr	1.91
		49.70			30-14	49.00	95.31	1.65	-	0.33	3.08	
		49.50			30-15	49.50	162.80	2.25	tr	0.26	1.46	
		50.00		Redeposited crust of weathering	30-16	50.00	6.15	0.14	-	tr	0.42	
C23 mt			51.00		30-17	51.00	2.44	0.06	-	tr	0.19	

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay									
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosene kg/m ³	Another kg/m ³			
Qi	0		8.00	Pebble-gravel deposits										
	10													
Ni ²⁺ ar	20		36.20	Light greenish gray dense clay partly w/Fe oxide										
	30													
	34													
	36													
	37													
	38													
	39													
	40													
	41													
	42													
	43													
	44													
	45													
	46													
	47													
	47.00		47.00	Light gray sandy clay partly Fe oxide w poor dust-like ilmenite(<1%)										
	48													
	49													
	50													
	51													
	52													
	53													
	50.00			Clayey Sand w/ilmenite(~10%)										
	51													
	52													
	53													
	54													
	55													
	56													
	57													
	58													
	59													
	60													
	61													
	62													
	63													
	64													
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	67													
	68													
	69													
	70													
	71													
	72													
	73													
	74													
	75													
	76													
	77													
	78													
	79													
	80													

M J B K - 3 2 (2) (1:200)
(22/26)


ELEVATION : 461.16m
COORDINATE: N 14, 635, 772.4 E 5, 398, 283.8

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Raucaene kg/m ³	Another kg/m ³
N ¹⁻² ar	50			Sandy clay w/ilmenite (~10%)	26-18	51.00	54.31	1.15	Tr	0.16	0.99
					26-19	51.50	100.49	1.59	Tr	Tr	3.55
					26-20	52.00	30.55	0.47	-	Tr	0.78
					26-21	53.00	63.52	1.07	Tr	0.36	0.96
					26-22	54.00	154.87	2.37	-	1.02	2.71
					26-23	55.00	67.72	1.27	Tr	0.21	1.90
					26-24	56.00	49.79	0.63	Tr	Tr	2.62
					26-25	57.50	106.76	1.61	Tr	1.76	3.36
					26-26	58.00	116.24	2.08	Tr	2.63	1.76
	C ₂₋₃ mt				57.90	Redeposited crust of weathering End of the hole	26-27	59.00	4.66	0.13	Tr	0.02	0.28
			58.00	26-28	60.00		1.21	0.05	-	0.10	0.10
	60										
	70										
	80										
	90										
	100										

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay											
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosene kg/m ³	Another kg/m ³					
Q1	0			Pebble-gravel deposits												
			9.00													
N1 ² ar	10			Greenish gray dense clay w/Mn oxide												
			11.50													
			15.00		Yellowish gray dense clay											
			20		Light gray dense clay											
			26.00													
			30		Greenish gray dense clay w/Fe oxide											
			35.00													
			37.00													
			40		Greenish gray sandy clay w/ilmenite(1~3%)											
			42.00													
			45.00		Greenish gray sandy clay w/ilmenite(5~7%)											
			50		Greenish gray sandy clay w/ilmenite(20~30%)											
						22/22-1	36.00	0.33	0.01	Tr	0.00	0.02				
						22-2	37.00	0.86	0.03	Tr	0.01	0.04				
						22-3	38.00	3.92	0.11	Tr	0.09	0.08				
					22-4	39.00	14.14	0.46	Tr	Tr	0.57					
					22-5	40.00	58.33	0.72	Tr	0.54	0.89					
					22-6	41.00	29.88	0.57	Tr	0.23	0.91					
					22-7	42.00	103.36	1.44	Tr	Tr	1.68					
					22-8	43.00	168.96	2.82	Tr	Tr	2.05					
					22-9	44.00	285.64	4.20	Tr	0.42	2.52					
					22-10	45.00	54.97	1.14	Tr	0.66	0.66					
					22-11	46.00	154.64	2.52	Tr	0.46	1.83					
					22-12	47.00	41.62	1.11	Tr	0.50	0.87					
					22-13	48.00	147.10	0.51	Tr	0.51	2.28					
					22-14	49.00	113.45	1.99	Tr	0.28	1.71					
					22-15	50.00	38.01	0.67	Tr	0.28	0.76					

M J B K - 3 3 (2) (1:200)
(22/22)

ELEVATION : 461.41m
COORDINATE: N 14,635,579.5 E 5,398,333.8

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosene kg/m ³	Another kg/m ³
C ₂₃ mt N ₁ ² ar	50		51.00	Fng sand w/ilmenite(30~50%)	22-16	51.00	221.77	3.05	Tr	0.76	2.03
		#		Redeposited crust of weathering	22-17	52.00	5.72	0.09	Tr	0.02	0.11
		#	53.00	End of the hole	22-18	53.00	3.45	0.05	Tr	Tr	0.05
	60										
	70										
	80										
	90										
	100										

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay										
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosene kg/m ³	Another kg/m ³				
Qi	0			Pebble-gravel deposits (6.5m~7.3m, Calcrete)											
			9.00												
	10					Greenish gray dense clay									
					12.00										
							Greenish brown dense clay								
					16.00										
							Light greenish gray clay								
					17.90										
							Dark gray dense clay w/Fe ochre								
					19.90										
		Light gray dense clay w/Fe ochre													
	25.00														
Ni ²⁺ ar				Light brown dense clay w/Fe ochre											
			34.00												
					Dark gray dense clay w/Fe ochre										
			37.90												
					Bluish gray sandy clay poor dust-like ilmenite		39.00								
			41.00												
					Bluish gray mdg-csg Sand w/ilmenite (25~30%)										
			45.40												
					Light brown dense clay w/Fe ochre										
			46.00												
				Greenish gray dense clay w/Fe ochre											
	50														
					22/18-1	40.00	6.66	0.09	Tr	0.06	0.15				
					18-2	41.00	4.03	0.09	Tr	0.01	0.05				
					18-3	42.00	18.33	0.46	Tr	0.03	0.22				
					18-4	43.00	132.21	2.58	Tr	0.43	1.51				
					18-5	44.00	193.77	2.37	Tr	3.17	3.64				
					18-6	45.00	170.27	1.92	Tr	3.30	4.67				
					18-7	45.40	139.68	2.02	Tr	0.29	1.44				
					18-8	46.00	2.94	0.05	Tr	0.02	0.06				
					18-9	47.40	5.08	0.12	-	0.02	0.17				

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Recovery kg/m ³	Another kg/m ³
N ¹² ar	50			Greenish gray dense clay w/Fe ochre							
		Fe									
		Fe									
		Fe									
			56.00	Light brown dense clay							
				60.00	End of the hole						
	60										
	70										
80											
90											
100											

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay							
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Residual kg/m ³	Another kg/m ³	
Q ₁	0			Pebble-gravel deposits								
	8.00											
N ₁₋₂ ar	10			Greenish gray dense clay w/Mn oxide, Fe ochre								
	20			Light brownish gray dense clay w/Fe ochre								
	22.00											
	26.00			Dark brownish gray dense clay w/Fe ochre								
	30			Greenish gray dense clay								
	32.00			Greenish gray dense clay w/Fe ochre								
	33.50											
	36.00			Light brown sandy clay w/Fe ochre								
	39.50			Light brown sandy clay w/ilmenite(~1%)								
	40.80											
	45.20			Dark brown sandy clay w/ilmenite(~20%)								
	50			Brownish gray dense clay								
						38.50						
					22/14-1	39.50	1.52	0.35	-	0.00	0.27	
					14-2	40.50	3.21	0.06	-	0.05	0.05	
					14-3	41.00	47.58	0.90	Tr	0.07	0.67	
					14-4	42.00	69.19	1.00	Tr	0.12	0.71	
					14-5	43.00	11.32	0.32	Tr	0.02	0.18	
					14-6	43.50	81.78	1.86	Tr	0.25	0.74	
					14-7	43.80	132.51	2.81	Tr	0.35	0.07	
					14-8	44.80	102.44	4.35	Tr	0.50	3.34	
					14-9	45.80	57.92	1.29	-	0.10	0.99	
					14-10	46.40	3.86	0.10	Tr	Tr	0.15	
					14-11	47.40	5.99	0.11	Tr	0.01	0.23	

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucaxene kg/m ³	Another kg/m ³
N ₁₋₂ ar	50			Brownish gray dense clay							
			57.00								
C ₂₋₃ mt			57.80	Dark brown mdg-csg sand							
		#		Redeposited crust of weathering							
		#		End of the hole							
	60	#	60.00								
	70										
	80										
	90										
	100										

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay								
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Residual kg/m ³	Another kg/m ³		
Qi	0			Pebble-gravel deposits									
	5.00												
Ni ²⁺ ar				Greenish gray-light gray clay w/Fe oxide									
	10												
	20												
	26.00~27.00m				26.00~27.00m Mn oxide								
	30												
	31.20												
					Greenish gray dense clay								
	35.00												
					Poor dust like ilmenite(<1%)								
	40												
41.00													
			Greenish gray fng sand w/ilmenite(3~10%) il partly high concentrate (41.0~41.7m, 47.3~48.0m, 49.0~50.3m)										
50													
50.20													
				50.20m- Redeposited crust of weathering Bottom of the hole(51.00m)									
51.00													
C ₂₋₃ mt													
					18/22-1	36.00	3.30	0.06	-	0.00	0.04		
					22-2	37.00	1.84	0.04	Tr	0.00	0.04		
					22-3	38.00	1.02	0.02	Tr	Tr	0.02		
					22-4	39.00	1.54	0.03	Tr	Tr	0.03		
					22-5	40.00	0.13	0.00	-	0.16	0.14		
					22-6	41.00	14.35	0.22	Tr	0.09	0.12		
					22-7	41.70	199.34	2.21	Tr	0.74	1.85		
					22-8	42.70	76.63	1.31	Tr	0.13	1.05		
					22-9	43.60	43.63	1.03	Tr	0.07	0.81		
					22-10	44.50	123.76	2.30	Tr	Tr	1.44		
					22-11	45.40	49.94	0.81	-	0.09	0.79		
					22-12	46.30	35.76	0.82	Tr	0.10	1.74		
					22-13	47.30	95.35	1.58	-	0.23	3.39		
					22-14	48.00	138.54	1.98	-	0.22	1.98		
					22-15	49.00	140.61	1.62	-	Tr	2.23		
					22-16	50.30	202.76	2.13	-	Tr	2.60		
					22-17	51.00	5.98	0.10	-	Tr	0.26		

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay								
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosene kg/m ³	Another kg/m ³		
QIII-IV	0			Pebble-gravel deposits									
	7.50												
N1-2 ar	10			Greenish gray dense clay w/Mn oxide, Fe oxide									
	20												
	28.00												
	30				Light gray dense clay, partly brownish w/fng sand	14/22-1	29.20	0.12	0.01	Tr	0.04	0.07	
	31.50					22-2	30.30	0.17	0.03	-	0.05	0.18	
						22-3	31.50	0.15	0.01	Tr	0.03	0.04	
						22-4	32.50	1.12	0.03	Tr	Tr	2.56	
						22-5	33.50	0.80	0.02	Tr	Tr	0.14	
						22-6	34.50	0.18	0.01	Tr	Tr	0.18	
						22-7	35.50	0.64	0.02	Tr	Tr	0.03	
						22-8	36.50	1.83	0.03	-	0.03	0.13	
						22-9	37.50	1.25	0.08	-	0.03	0.21	
						22-10	38.50	0.13	Tr	-	Tr	0.30	
						22-11	39.80	0.21	Tr	-	Tr	0.68	
						22-12	40.90	0.08	Tr	-	Tr	0.18	
						22-13	42.00	0.07	Tr	-	Tr	0.26	
						22-14	43.00	0.06	0.01	-	Tr	0.05	
			22-15	44.00		0.09	0.01	-	Tr	0.00			
C2-3 mt	44.00	#		Redeposited crust of weathering		22-16	45.00	0.07	0.01	-	0.01	0.05	
	48.00	#				22-17	46.00	0.15	Tr	-	Tr	0.00	
	50			Bottom of the hole									

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay								
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosane kg/m ³	Another kg/m ³		
Q ₁	0			Pebble-gravel deposits									
	10												
N ₁₋₂ ar			11.00	Light green-gray dense clay									
			12.50										
				Yellowish gray dense clay									
			17.00										
				Light sandy clay sandy clay w/ilmenite(1~3%)	27/32-1	18.00	0.88	0.01	Tr	0.00	0.02		
					32-2	19.00	0.90	0.02	Tr	0.01	0.03		
					32-3	20.00	1.01	0.04	Tr	0.01	0.03		
					32-4	21.00	6.02	0.22	Tr	0.04	0.18		
					32-5	22.00	2.98	0.08	Tr	0.01	0.10		
					32-6	23.00	5.28	0.12	Tr	0.02	0.13		
			32-7		24.00	4.55	0.17	Tr	0.04	0.14			
			32-8		25.00	1.35	0.05	Tr	0.01	0.06			
			32-9	26.00	5.34	0.15	Tr	0.05	0.20				
			32-10	27.00	4.95	0.17	Tr	0.03	0.19				
C ₂₋₃ mt			28.00	Redeposited crust of weathering									
			30										
					40.00	End of the hole							
					40								
			50										

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay								
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucmans kg/m ³	Another kg/m ³		
Q ₁	0			Pebble-gravel deposits									
	10		10.00										
	N ₁₋₂ ar		14.50		Light yellowish gray dense clay								
						Reddish brown dense clay w/Fe oxide							
			22.00										
C ₂₋₃ mt			23.70	Brownish gray sandy clay w/Fe oxide									
			27.30		Yellowish gray sandy clay								
			28.80										
		30	#		Redeposited crust of weathering	27/40-1	28.30	0.42	0.04	-	0.03	0.08	
			#			40-2	29.30	0.47	Tr	-	0.05	0.66	
		#	40-3	30.30		0.32	Tr	-	0.04	0.28			
		#	40-4	31.30		0.78	0.07	-	Tr	0.42			
		#											
	40	#	40.50	End of the hole									
	50												

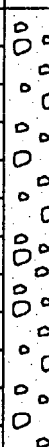
F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucorone kg/m ³	Another kg/m ³
Q1	0			Pebble-gravel deposits							
	10		* Fe								
N ₁₋₂ ar	12.00			Light brownish gray dense clay							
	15.60										
	20			Yellowish gray dense clay							
	23.00			Yellowish gray sandy clay w/Fe oxide		23.80					
	26.00				27/48-1	24.80	0.48	0.02	Tr	0.00	0.02
C ₂₋₃ mt					48-2	25.80	1.20	0.04	Tr	0.01	0.03
					48-3	26.80	0.42	Tr	-	Tr	0.14
					48-4	27.80	0.22	Tr	-	Tr	0.07
	30			Redeposited crust of weathering							
			35.00	End of the hole							
	40										
	50										

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay									
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reagents kg/m ³	Another kg/m ³			
Q1	0			Pebble-gravel deposits										
	10													
	16.00													
	C ₂₋₃ mt		#			Redeposited crust of weathering								
		20	#											
		30	#											
		31.00	#											
							End of the hole							
		40												
		50												

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucorone kg/m ³	Another kg/m ³
Q1	0			Pebble-gravel deposits							
	10										
N1-2 ar			12.00	Light brownish gray dense clay							
			17.00	Light brownish gray fng silt-sand							
			18.00	Light brownish gray fng silt-sand							
C2-3 mt	20	#		Redeposited crust of weathering							
		#									
		#									
		#									
		#									
		#									
		#									
		#									
	30	#									
		#									
			32.00	End of the hole							
	40										
	50										

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay							
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucorane kg/m ³	Another kg/m ³	
Q1	0			Pebble-gravel deposits								
C ₂₋₃ mt			14.00	Redeposited crust of weathering								
			42.00	End of the hole								
	50											

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay								
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosene kg/m ³	Another kg/m ³		
Q ₁	0			Pebble-gravel deposits									
	10												
N ₁₋₂ ar			12.00	Light gray clay w/Mn oxide									
	20												
			22.00										
			23.80		Poor dust-like ilmenite(<1%)								
					Blueish gray sandy clay w/ilmenite(1~5%)								
			28.30										
	C ₂₋₃ mt	30	#			Redeposited crust of weathering							
			#										
		#											
		#											
		#	33.00	End of the hole									
	40												
	50												
					1Γ/32-1	22.00	1.13	0.03	Tr	0.01	0.02		
					32-2	23.00	15.62	0.64	Tr	0.09	0.26		
					32-3	23.80	31.45	1.34	Tr	0.10	0.62		
					32-4	24.80	69.42	2.36	Tr	0.30	1.18		
					32-5	26.00	96.40	3.03	Tr	0.20	1.41		
					32-6	27.00	120.00	3.15	-	0.21	1.47		
					32-7	28.00	126.98	3.65	Tr	Tr	2.01		
					32-8	28.80	92.73	1.79	Tr	0.14	0.96		
					32-9	29.30	6.65	0.22	-	Tr	0.41		
					32-10	30.00	1.54	0.09	-	Tr	0.41		
					32-11	31.00	0.99	0.08	-	0.02	0.25		

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay								
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Spinel kg/m ³	Another kg/m ³		
Q1	0			Pebble-gravel deposits									
	10												
	12.00												
			C _{2,3} mt		#	Redeposited crust of weathering							
					#								
					#								
					#								
					#								
					#								
	20				#								
					#								
					#								
	#												
30	30.50	#	End of the hole										
40													
50													

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay					
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Recesses kg/m ³	Another kg/m^{3}
Q1	0			Pebble-gravel deposits						
	10		11.00							
N1 ² ar			13.80	Pale yellowish brown dense clay w/ Mn oxide						
			15.70	Pale reddish gray dense clay w/Mn oxide						
			19.00	Pale yellowish brown dense clay w/ Mn oxide						
	20		21.00	Pale reddish gray dense clay w/Mn oxide						
C _{2,3} mt		#		Redeposited crust of weathering						
		#								
		#								
		#								
		#								
			29.00	End of the hole						
	30									
	40									
	50									

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay					
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucorene kg/m ³	Another kg/m^{3}
QI	0			Pebble-gravel deposits						
	10		11.00							
C ₂₋₃ mt		#		Redeposited crust of weathering						
		#								
		#								
		#								
		#								
		#								
		#								
		#								
		#								
		#			25.00	End of the hole				
	30									
	40									
	50									

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosene kg/m ³	Another kg/m ³
Q ₁	0			Pebble-gravel deposits							
	10		10.00								
N ₁₋₂ ar			13.00	Pale gray dense clay							
			16.30	Yellowish gray dense clay							
			20.00	Dark gray dense clay		20.00					
			22.50	Sandy clay w/poor dust-like ilmenite	114Γ/ 32-1	21.00	6.75	0.14	-	0.06	0.06
			24.00	Clayey Sand w/ilmenite(1~3%)	32-2	22.00	4.06	0.08	Tr	0.02	0.08
			25.10	Fng sand w/ilmenite(~5%)	32-3	23.00	51.70	1.42	Tr	0.22	0.66
					32-4	24.00	86.40	2.12	Tr	0.46	1.21
C ₂₋₃ mt					32-5	25.00	138.43	3.08	Tr	0.39	1.90
					32-6	26.00	1.07	0.05	-	Tr	0.08
					32-7	27.00	0.57	0.02	-	Tr	0.02
				Redeposited crust of weathering							
				End of the hole							
			35.00								
	40										
	50										

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosang kg/m ³	Another kg/m ³
Q1	0			Pebble-gravel deposits							
			9.00								
C ₂₋₃ mt	10	#		Redeposited crust of weathering							
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		20	#			Redeposited crust of weathering					
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
	30	#		Redeposited crust of weathering							
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
		#									
	39.00	#			End of the hole						
	40										
	50										

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosene kg/m ³	Another kg/m ³
QIII-IV	0			Pebble-gravel deposits							
	8.50										
N ₁ ¹⁻² ar	10			Brownish gray dense clay							
	12.00			Brownish gray dense sandy clay w/Mn oxide							
	16.00										
	20			Brownish gray dense sandy clay							
	26.80										
C ₂₋₃ mt	28.80			Clayey sandy w/poor dust like ilmenite(<1%)	116r/ 16-1	27.80	2.38	0.05	-	0.01	0.17
	29.50				16-2	28.80	3.26	0.09	Tr	Tr	0.50
				Clayey Sand w/ilmenite(~5%)	16-3	29.50	8.30	0.23	Tr	0.03	0.21
				w/Fe oxide	16-4/1	30.00	5.51	0.23	-	0.23	0.79
					16-4/2	30.50	53.21	1.44	-	0.59	1.26
					16-5	31.50	91.64	2.00	-	0.20	4.28
				Redeposited crust of weathering	16-6	32.00	168.80	3.06	Tr	0.13	4.77
				Bottom of the hole	16-7	33.00	1.08	0.04	-	Tr	0.22
				16-8	34.00	0.20	Tr	-	Tr	-	
	34.00										
	40										
	50										

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay							
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosang kg/m ³	Another kg/m ³	
Q ₁	0			Pebble-gravel deposits								
			9.00									
N ₁₋₂ ar	10			Greenish gray dense clay								
			17.00	14.5-16.5m, partly sandy w/Mn oxide								
	20			Yellowish gray dense clay w/Fe oxide								
			21.50									
C ₂₋₃ mt			22.00	Light Greenish gray dense clay	1147/16-1	23.00	2.14	0.04	-	Tr	0.03	
			24.00	Dark gray fng Sand w/ilmenite(1~5%)	16-2	24.00	0.97	0.03	-	0.01	0.02	
			25.00	Greenish gray clay poor dust-like ilmenite(<1%)	16-3	25.00	4.02	0.06	Tr	0.01	0.06	
			26.00		16-4	26.00	5.24	0.12	Tr	0.01	0.03	
			27.00		16-5	27.00	0.38	0.01	Tr	Tr	0.01	
			28.00									
	30	#		Redeposited crust of weathering								
		#										
		#										
		#										
		#										
		#										
		#										
		#	37.00	End of the hole								
	40											
	50											

M J B K S - 1 5 (1:200)
(3F/-4)

ELEVATION : 483.27m
COORDINATE: N 14, 632, 614.7 E 5, 403, 340.7

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Recessing kg/m ³	Another kg/m ³
QII-III	0			Pebble-gravel deposits							
			7.00								
N ₁₋₂ ar			9.00	Pale reddish gray dense clay w/Fe oxide							
	10		12.00	Yellowish gray dense clay w/Mn oxide							
			18.50	Yellowish gray dense clay							
			17.50								
			18.50		3F(-4)-1	18.50	0.14	0.00	-	Tr	0.02
			19.60		(-4)-2	19.60	0.33	0.06	-	Tr	0.13
			20.70	Light gray sandy clay	(-4)-3	20.70	0.07	Tr	-	Tr	0.03
			21.80	Poor dust-like ilmenite(<1%)	(-4)-4	21.80	0.17	Tr	-	Tr	0.04
			22.80		(-4)-5	22.80	0.10	0.01	-	Tr	0.02
			28.50	Pale brown dense clay							
C ₂₋₃ mt	30	#		Redeposited crust of weathering							
		#									
		#	33.00	End of the hole							
	40										
	50										

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay								
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucorone kg/m ³	Another kg/m ³		
Q _{II-III}	0			Pebble-gravel deposits									
	9.00												
N ₁₋₂ ar	10			Greenish gray dense clay w/Fn oxide									
	24.00												
	25.10				Light gray sandy clay poor dust-like ilmenite(<1%)	3r/4-1	25.10	10.69	0.29	-	0.03	0.14	
	26.20					4-2	26.20	15.23	0.34	-	0.01	0.50	
	27.30					4-3	27.30	3.87	0.11	-	0.01	0.10	
	28.50					4-4	28.50	3.57	0.15	-	0.01	0.08	
	29.50					4-5	29.50	33.53	0.87	-	0.06	0.81	
	30.40				Light gray caly Sand w/ilmenite(<5%)	4-6	30.40	188.08	4.26	-	0.13	1.20	
	31.30					4-7	31.30	214.77	5.13	Tr	0.11	1.39	
	32.20				Gray fng Sand w/ilmenite(5~7%)	4-8	32.20	162.05	3.36	-	Tr	1.68	
	33.10					4-9	33.10	157.90	2.73	-	Tr	1.28	
	34.00					4-10	34.00	10.32	0.24	-	Tr	0.24	
	35.00					4-11	35.00	4.44	0.10	-	0.01	0.09	
36.00				4-12	36.00	0.90	0.01	-	0.05	0.09			
37.00				4-13	37.00	1.57	0.06	-	0.01	0.12			
38.00			Light gray dense clay Poor dust like ilmenite(<1%)	4-14	38.00	0.64	0.03	Tr	0.00	0.02			
39.00				4-15	39.00	20.40	0.58	Tr	0.04	0.28			
40.00				4-16	40.00	0.93	0.02	Tr	0.00	0.01			
41.00				4-17	41.00	2.46	0.02	Tr	0.01	0.10			
42.00				4-18	42.00	8.61	0.20	-	0.02	0.16			
43.00			Redeposited crust of weathering	4-19	43.00	0.13	0.01	-	Tr	0.04			
44.00				4-20	44.00	0.64	0.01	-	Tr	0.01			
45.00			End of the hole	4-21	45.00	1.50	0.05	-	0.01	0.04			
C ₂₋₃ mt													

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay										
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosene kg/m ³	Another kg/m ³				
QIII-IV	0			Pebble-gravel deposits											
			9.00												
N ¹⁻² ar	10			Light-greenish gray dense clay											
			15.00												
	20			Light gray clay w/Fe ochre											
			27.00												
			29.00												
			30.30		Sandy clay w/ilmenite(1~2%)										
			30.60		Gray dense Clay w/fng ilmenite										
			30.60		Light gray-white Clay w/Fe ochre										
			33.10		Clayey Sand w/ilmenite(5~7%)										
			33.30												
C ₂₃ mt		#													
		#		Redeposited crust of weathering											
		#													
		#													
		#													
		#													
		#													
		#		40.00	Bottom of the hole										

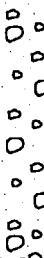
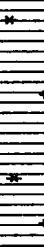

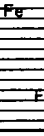
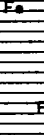





F	Depth m	Sec	Depth m	Geology & Mineralization	Assay							
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucrone kg/m ³	Another kg/m ³	
QIII-IV	0			Pebble-gravel deposits								
			9.50									
N ¹⁻² ar	10			Greenish gray clay w/Mn oxide								
			12.90									
N ¹⁻² ar				Brownish gray clay w/Mn oxide								
			19.00									
N ¹⁻² ar	20				3F/24-1	20.00	1.24	0.04	Tr	-	0.02	
			21.00									
N ¹⁻² ar				Poor dust like ilmenite(<1%)	24-2	21.00	0.13	0.01	-	Tr	6.56	
			23.10									
N ¹⁻² ar				Brownish gray clay w/Mn oxide	24-3	22.00	5.29	0.25	-	-	0.09	
			27.60									
N ¹⁻² ar				Light gray clay w/Mn oxide	24-4	22.80	15.95	0.61	-	Tr	1.10	
			31.10									
N ¹⁻² ar				Brownish gray clay	24-5	23.10	9.11	0.25	-	0.02	0.43	
			35.00									
N ¹⁻² ar				Poor dust like ilmenite(<1%)	24-6	24.00	0.85	0.04	-	0.00	0.09	
			35.60									
C ₂₃ mt				Brownish gray clay	24-7	25.00	0.13	Tr	-	Tr	0.07	
			40.50									
C ₂₃ mt				Redeposited crust of weathering								
				End of the hole								
	50											

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Raucoene kg/m ³	Another kg/m ³
Q ₁	0			Dense loam w/Pebbles							
			2.00								
N ₁₋₂ ar			8.00	Pebble-gravel deposits							
	10		10.30	Greenish gray dense clay w/Mn oxide							
				Redish brown gray dense clay w/Fe oxide							
			18.00								
	20			Greenish gray sandy clay							
			23.10								
			24.60	Fng-Csg Sand w/clay	3Г/32-1	24.60	0.72	Tr	-	0.16	0.36
			25.10	Csg Sand	32-2	25.10	0.90	0.02	-	0.04	0.56
					32-3	26.00	6.08	0.11	-	0.11	1.15
					32-4	27.00	0.86	0.04	-	0.02	0.59
C ₂₋₃ mt				Greenish gray dense clay w/iron ochre							
	30				32-5	28.50	0.05	Tr	-	0.00	0.01
					32-6	30.00	0.09	Tr	-	0.01	0.06
			31.50		32-7	31.50	0.02	Tr	-	Tr	0.02
				Crust of weathering silt	32-8	33.00	0.04	Tr	-	0.00	0.04
				Bottom of the hole	32-9	34.00	0.12	0.05	-	0.02	0.18
			35.00								
	40										
	50										

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay															
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosene kg/m ³	Another kg/m ³									
QIII-IV	0			Pebble-gravel deposits																
			7.00																	
N ₁₋₂ ar			8.70	Greenish gray dense clay																
			10	Greenish gray clay w/Mn oxide, Fe ochre																
			13.00																	
			20	Reddish brown dense clay w/Mn oxide, Fe ochre																
			21.20																	
			22.30	Light brown Clayey Sand																
			26.40	Light brown dense clay w/Mn oxide																
			27.40			37/40-1	27.40	0.23	0.02	-	Tr		0.34							
			28.40			40-2	28.40	0.20	0.03	-	Tr		0.06							
			29.00			40-3	29.00	0.10	Tr	-	Tr		0.17							
			30.00			40-4	30.00	0.15	Tr	-	0.03		0.22							
			30.40	Light brown clay w/ilmenite		40-5	30.40	0.76	0.02	-	Tr		0.17							
			31.00			40-6	31.00	0.21	Tr	-	Tr		0.07							
			32.00			40-7	32.00	0.01	0.00	-	Tr		0.04							
			33.00			40-8	33.00	0.12	Tr	-	0.70		0.28							
			34.00			40-9	34.00	0.05	0.03	Tr	Tr		0.02							
			35.00			40-10	35.00	0.30	Tr	-	Tr		-							
		36.00			40-11	36.00	0.07	0.04	-	0.02		0.34								
		36.40			40-12	36.40	0.11	Tr	-	0.05		0.48								
		37.40			40-13	37.40	0.12	0.08	-	0.01		0.55								
		38.00			40-14	38.00	0.02	0.09	-	0.02		0.44								
		39.10			40-15	39.10	0.07	Tr	-	Tr		0.14								
C ₂₋₃ mt	40	#		Redeposited crust of weathering fng sand, clay																
		#																		
		#	43.00	Bottom of the hole																
	50																			

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay					
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucorone kg/m ³	Another kg/m^{3}
Q _{II-III}	0			Pebble-gravel deposits						
			6.00							
N ¹⁻² ar			7.00	Reddish brown dense clay						
			8.60	Light gray dense clay						
	10			Reddish brown dense clay w/Mn oxide						
			12.80							
			14.20	Light gray dense clay						
			16.40	Brownish gray dense						
	20			Pale reddish gray dense clay						
			29.00							
	30			Pale reddish gray clayey sand						
			32.00							
C ₂₋₃ mt		#		Redeposited crust of weathering						
		#	37.00	End of the hole						
	40									
	50									

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay					
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucaxene kg/m ³
Q _{11-III}	0			Pebble-gravel deposits						
			7.00							
N ₁₋₂ ar		*		Gray dense clay w/Mn oxide						
	10	*	11.00							
			12.00	Brownish green dense clay						
	20	Fe		Brownish gray w/Fe ochre						
	Fe	27.00								
C ₂₋₃ mt		#		Redeposited crust of weathering						
	30	#	32.00		End of the hole					
	40									
	50									

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosene kg/m ³	Another kg/m ³
QII-III	0			Pebble-gravel deposits							
			7.00								
				Greenish gray dense clay w/Mn oxide							
N1-2 ar	10										
			14.00								
				Light gray clay with Fe oxide							
			18.00								
				Dark gray clay with Fe oxide							
			25.80								
				Pale gray dense clay							
			29.00								
				Reddish brown clayey silt							
			30.50								
C2-3 mt				Yellowish brown dense clay							
			34.20								
				Pale reddish brown clayey silt							
			37.00								
				Redeposited crust of weathering							
			40.00								
	40			End of the hole							
	50										

Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosene kg/m ³	Another kg/m ³
	35.00					
3f/64-1	36.20	0.57	0.04	-	0.04	0.12
64-2	36.50	1.99	0.17	-	0.16	0.12
64-3	37.00	0.36	Tr	-	0.02	0.03

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosene kg/m ³	Another kg/m ³
Q ₁	0			Pebble-gravel deposits							
	7.00										
N ₁ ² ar	10			Greenish gray dense clay							
	18.00										
	20			Yellowish gray dense clay							
	23.00										
	25.00				114r/0-1	24.00	1.69	0.05	Tr	Tr	0.04
	26.00			Brownish gray clay w/Fn oxide	0-2	25.00	2.88	0.11	-	0.01	0.06
	26.00				0-3	26.00	0.35	0.01	Tr	Tr	0.02
	29.00			Reddish brown sandy clay w/Fn oxide	0-4	27.00	0.95	0.02	-	-	4.20
	29.00				0-5	28.00	1.20	0.05	-	-	1.46
	30			Greenish gray dense clay							
36.00											
40			Reddish Brown Clayey Sand								
40.00											
C ₂₋₃ mt	41.00			Redeposited crust of weathering End of the hole							
	50										

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay										
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucmans kg/m ³	Another kg/m ³				
QIII-IV	0			Pebble-gravel deposits											
			7.60												
N1 ² ar	10			Greenish gray dense clay											
			11.20												
			13.20		Brownish gray dense clay w/Mn oxide										
			15.20		Greenish gray dense clay										
			17.00		Brownish gray dense clay w/Mn oxide										
			21.30		Greenish gray sandy clay										
			24.20		Brownish gray dense clay w/Mn oxide										
			30.90		Clayey fng sand										
					Poor dust like ilmenite (<1%)	116Γ/ 0-1	28.50	3.15	0.14	-	0.07	0.36			
						0-2	29.50	3.24	0.04	-	0.09	0.43			
C ₂₋₃ mt					0-3	30.90	0.77	0.07	-	0.13	0.25				
					0-4	32.00	0.65	0.02	-	0.09	0.09				
					0-5	33.00	0.38	0.02	-	0.13	0.31				
					Redeposited crust of weathering										
			34.00												
				Bottom of the hole											
	40														
	50														

M J B K N - 1 (1) (1:200)
(1C/5)

ELEVATION : 586.54m
COORDINATE: N 14, 629, 085.2 E 5, 417. 441. 8

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosane kg/m ³	Another kg/m ³
Q1	0			Dense loam w/Pebbles							
			7.00	Pebble-gravel deposits w/boulders (max. 4 x 10cm)							
N ¹⁻² ar	10		*								
	30			Brownish gray dense clay							
	50										

M J B K N - 1 (2) (1:200)
(10/5)

ELEVATION : 586.54m
COORDINATE: N 14, 629, 085.2 E 5, 417, 441.8



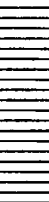
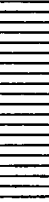














F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosene kg/m ³	Another kg/m ³
N ₁ ² ar	50			Olive dense clay							
	60		60.00	Silt							
			63.00	Whitish gray Sand w/silt							
			64.90	Redeposited crust of weathering							
C ₂₋₃ mt		#	67.00								
	70										
	80										
	90										
	100										

M J B K N - 2 (1) (1:200)
(1C/4)

ELEVATION : 574.06m
COORDINATE: N 14,629,465.0 E 5,416,480.2

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosene kg/m ³	Another kg/m ³
Q _{U-III}	0			Silt							
			2.50								
N _{I² ar}				Olive dense Clay							
	10										
			16.00								
			17.00	Clyey Sand							
	20										
	30			Olive dense Clay							
	40										
			42.00								
			45.00	Clyey Sand							
				Olive dense Clay							
	50										

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosane kg/m ³	Another kg/m ³
Ni ²⁺ ar	50		51.10	Sand with Clay							
				Pale gray dense clay		57.00					
			58.00	Fng Sand	1C/4-1	58.00	0.35	0.04	-	tr	0.04
			59.00	Pale gray dense clay	1C/4-2	59.20	3.84	0.16	tr	0.03	0.13
			60.00		1C/4-3	60.30	26.04	0.98	tr	0.26	0.85
			60.00		1C/4-4	61.00	14.40	0.93	tr	0.21	0.51
			62.00	Fng Silty Sand	1C/4-5	62.00	17.63	0.93	tr	0.31	1.24
			63.00		1C/4-6	63.00	28.54	1.19	tr	0.59	1.49
			64.00		1C/4-7	64.00	25.54	0.89	-	0.30	1.19
			64.40		1C/4-8	64.40	8.51	0.49	tr	0.24	0.73
			65.00		1C/4-9	65.00	16.11	1.23	-	0.53	2.10
		66.40	Dark gray fng Sand w/silt	1C/4-10	66.20	21.36	0.96	-	0.12	3.48	
				1C/4-11	67.00	8.03	0.76	-	0.08	1.82	
C ₂₋₃ mt		#		Redeposited crust of weathering							
	#										
	#										
	#										
	70		70.00								
	80										
	90										
	100										

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucorone kg/m ³	Another kg/m ³
Q _{U-III}	0			Pebble-gravel deposits							
			4.00								
N ¹⁻² ar	10			Pale greenish gray dense clay							
	20										
			26.00	Dark brown clay							
			29.30								
			31.20	Light greenish gray clay							
											
			35.00	Sand w/silt							
											
			40.30	Silt w/fng sand							
											
		45.00	Fng sand								
		46.20									
		48.30	Dark gray sand								
											
		49.80	Dark gray dense clay								
											

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosane kg/m ³	Another kg/m ³
N ₁₋₂ ar	50			Greenish gray clay		51.00					
			52.00		1C/3-1	51.70	0.42	0.05	-	tr	0.08
				Fng sand	1C/3-2	53.00	0.45	0.09	-	tr	0.27
			56.00		1C/3-3	54.00	2.99	0.64	tr	0.11	0.32
				Fng sand w/poor dust like ilmenite (<1%)	1C/3-4	55.00	1.41	0.28	-	0.09	0.28
			59.00		1C/3-5	56.00	1.29	0.34	-	0.09	0.17
				Fng sand w/poor dust like ilmenite (<1%)	1C/3-6	57.00	2.62	0.05	-	0.17	0.26
			60.50		1C/3-7	58.00	2.27	0.61	-	0.17	0.26
				Silt	1C/3-8	59.00	3.42	0.32	-	0.11	0.43
			63.30		1C/3-9	60.00	3.56	0.49	-	0.20	0.30
				Fng sand w/poor dust like ilmenite (<1%)	1C/3-10	61.00	0.49	0.11	-	0.05	0.18
					1C/3-11	62.00	4.14	0.72	tr	0.35	1.80
				Redeposited crust of weathering	1C/3-12	63.00	14.12	0.57	tr	0.21	0.50
			1C/3-13		64.00	0.46	tr	-	tr	0.08	
C ₂₋₃ mt		#									
		#									
		#									
		#									
		#	68.00								
	70										
	80										
	90										
	100										

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosene kg/m ³	Another kg/m ³
QII-III	0			Dense loam w/Pebbles							
			1.00	Pebble-gravel deposits							
N ₁ ² ar	10		9.50	Dark olive dense clay							
			13.00								
	20			Pale greenish gray dense clay							
			27.00								
	30		31.00	Dark pale greenish gray dense clay w/Mn oxide							
				Dark Brownish gray dense clay w/fng quartz, feldspar							
			42.00								
				Light greenish gray dense clay w/Mn oxide							
	50										

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay					
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosene kg/m ³
Ni ²⁺ ar	50			Light greenish gray dense clay w/Mn oxide						
			52.00	Light greenish gray dense clay w/Fe oxide						
C ₂₃ mt	60	# #	59.50 60.00	Redeposited crust of weathering End of the hole						
	70									
	80									
	90									
	100									

M J B K N - 5 (1) (1:200)
(1C/1)

ELEVATION : 558.82m
COORDINATE: N 14,630,642.5 E 5,413,678.4

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay							
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucosone kg/m ³	Another kg/m ³	
QII-III	0			Dense loam w/Pebbles								
	10											
	20											
	24.50											
	NI ² ar	30				Greenish gray dense clay						
		43.10										
		44.00					Light gray sandy clay					
		46.50					Light greenish gray sandy clay					
		50					Dark gray sandy clay					

M J B K N - 5 (2) (1:200)
 (10/1)

ELEVATION : 558.52m
 COORDINATE: N 14,630,642.5 E 5,413,678.4

F	Depth m	Sec	Depth m	Geology & Mineralization	Assay						
					Sample #	Depth m	Ilmenite kg/m ³	Zircon kg/m ³	Rutile kg/m ³	Reucoren kg/m ³	Another kg/m ³
Ni ²⁺ ar	50			Dark gray sandy clay							
			53.00								
			54.40	Greenish gray fng Sand w/poor dust-like ilmenite (<1%)	10/1-1	53.70	0.77	0.07	-	Tr	0.07
					1-2	54.40	0.22	0.02	-	Tr	0.06
			56.00	Light greenish gray clayey sand	1-3	55.10	7.02	0.23	Tr	0.11	0.34
					1-4	56.00	0.11	0.01	-	0.01	0.03
			61.00	Light gray silt-fng sand							
			65.00	Greenish gray clayey sand							
					1-5	66.00	6.91	0.46	-	0.12	0.35
				1-6	67.00	12.90	0.81	Tr	0.46	1.50	
				1-7	68.00	14.35	0.40	Tr	0.27	0.93	
				1-8	69.00	11.78	0.39	Tr	0.52	0.92	
				1-9	70.00	0.12	0.03	Tr	0.01	0.08	
			70.00	End of the hole							
	80										
	90										
	100										

Appendix 2. Results of Laboratory Works

Appendix 2-1 List of Laboratory Works

Appendix 2-1 List of Laboratory Works

No.	Type of work	Total
1	Microscopic observation of the thin sections	19
2	X-Ray diffraction analysis	21
3	Whole Rock Analysis	26
4	Minor Element Analysis	26
5	Modal Analysis for Opaque Minerals	19
6	EPMA	2
7	EDX	9
8	Preparation for analysis	536
9	Quantity mineralogical analysis for ilmenite, rutile and zircon of usual and check samples	446
10	Inside (same laboratory) geological check of mineralogical analysis (III classes of content - select 30 samples each)	90
11	Outside (another laboratory) geological check of mineralogical analysis (III classes of content - select 30 samples each)	90
12	Chemical analysis of check samples for TiO_2 and ZrO_2	31
13	Grainmetric analysis of monomineral fraction	29
14	Chemical and spectral quantity analysis of monomineral fraction Ilmenite; TiO_2 , Sc_2O_3 , Nb_2O_5 , Ta_2O_5 , TR, V_2O_5 , Cr_2O_3 , Al_2O_3 , SiO_2 , FeO, Fe_2O_3	19
	Zircon; ZrO_2 , Sc_2O_3 , Hf, TR, Y, Th	10
15	Determination of zircon radioactivity	10
16	Chemical analysis of water sample	1
	Chemical analysis of water sample according to the State Standard (GOST) "Drinking water"	1

**Appendix 2-2 Microscopic Observations of
the Thin Sections**

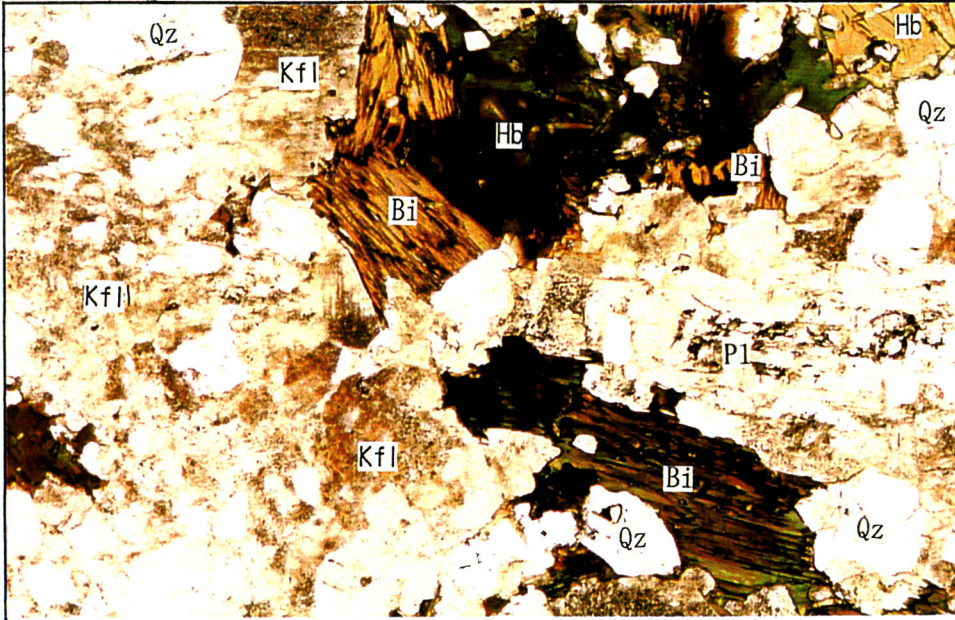
Appendix 2-2 Microscopic Observations of the thin Sections

	SAMPLE NUMBER	PETROGRPHIC NAME	Quartz(Qz)	K-feldspar(Kf)	Plagioclase(Pl)	Biotite(Bi)	Hornblende(Hb)	Augite(Px)	Olivine(Ol)	Zircon(Zr)	Apatite(Ap)	Ilmenite(Il)	Magnetite/Ti-magnetite(Ti-Mt)	Actinolite(Ac)	Chlorite(Chl)	Sericite(Ser)	Clay minerals (Kaoline,Smectite,illite)
1	G004	Hornblende-biotite monazogranite	○	○	◎	○	△			.	.	.	.
2	G029	Hornblende-biotite monazogranite	○	○	◎	○	△					.	.				
3	G031	Andesitic agglomerate	.		◎	△	○	○					.		△	.	
4	G034	Hornblende-biotite monazogranite	◎	◎	○	△	.			.		.	.		.
5	G053	Pyroxene-hornblende quartzmonzonite	○	◎	○		△	.		.		.	.		.
6	G078	Biotite monzogranite	○	◎	◎	.						.	.		△		
7	G087	Hornblende-biotite monazogranite	◎	◎	○	△	△			.		.	.		.
8	G096	Hornblende monzogranite	○	◎	○		○			.							
9	G109	Biotite-hornblende monzogranite	.	○	◎	△	◎					.					
10	G113	Biotite monzodiorite	.	○	◎	△				.	.				.	.
11	G124	Hornblende-biotite monazogranite	◎	◎	△	.	.			.		.	.
12	G127	Hornblende-biotite monzodiorite	.		◎	○	○			.					○	.	
13	G201	Biotite monzogranite	◎	◎	△	△									.	.	
14	G209	Biotite monzogranite	◎	○	◎	△						.	.		△	.	
15	I002	Biotite-hornblende monzogranite	○	◎	△	.	△			.		.	.		.	.
16	I004	Andesitic -tuff	◎		◎	△	△	○				△					
17	I023	Andesitic agglomerate	.		◎	.		△					.	.	△	.	
18	I063	Biotite monzogranite	.	○	◎	○							.				
19	I085	Biotite monzogranite	◎	◎	○	△				.		.	.		.
20	I106	Gabbro	.	○	◎	○	◎		△			.			.	.	
21	MJBK-29 48.0m	Ilmenite-bearing clayey sand	◎	.	.								○				△
22	MJBK-21 41.0m	Ilmenite-bearing clayey sand	◎	.	.								○				

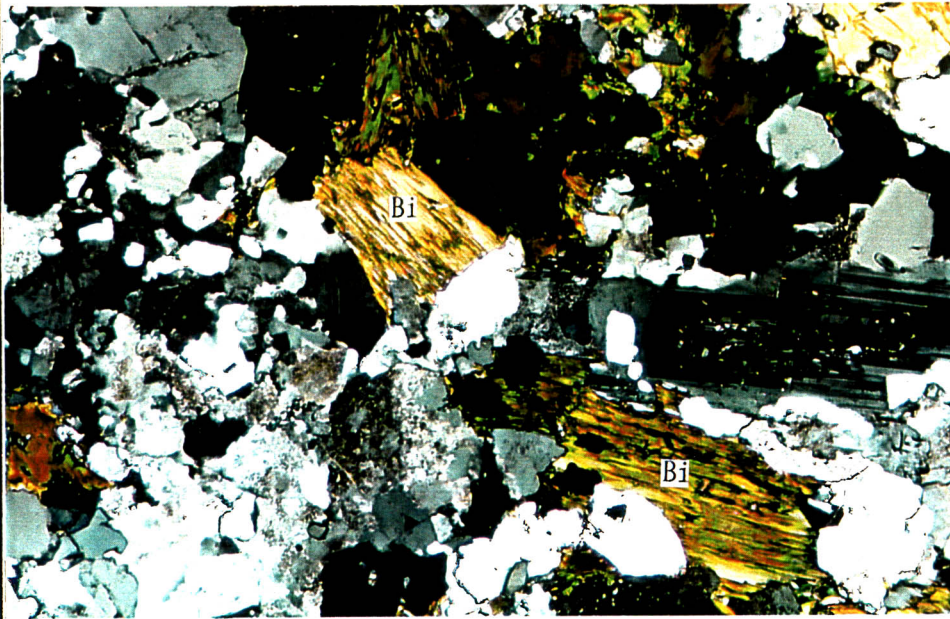
[Abundance]

◎: Abundant, ○: Common, △: Poor, .: Rare

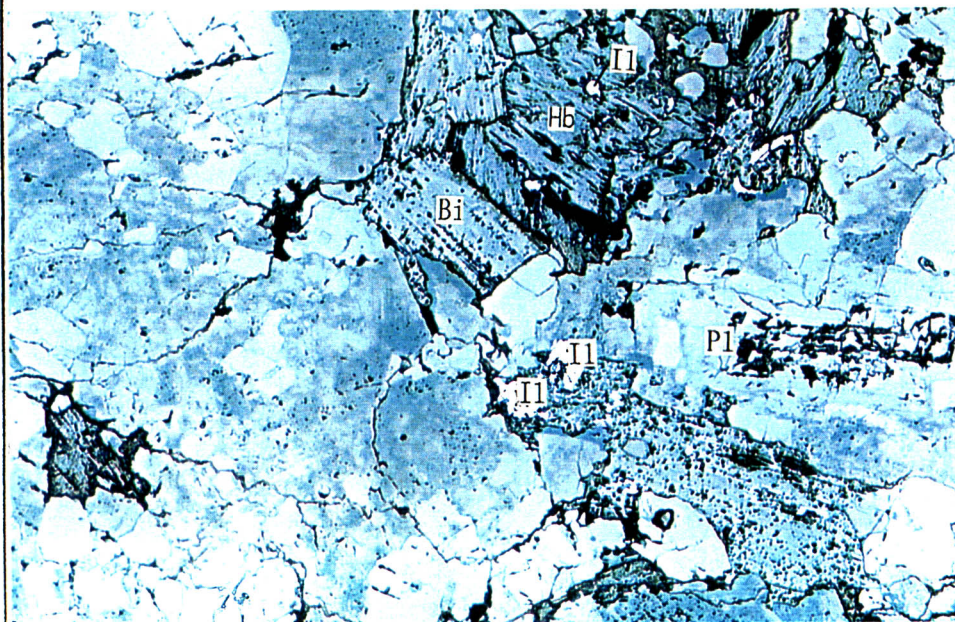
Appendix 2-3 Photomicrographs of the Thin Sections



open nicol



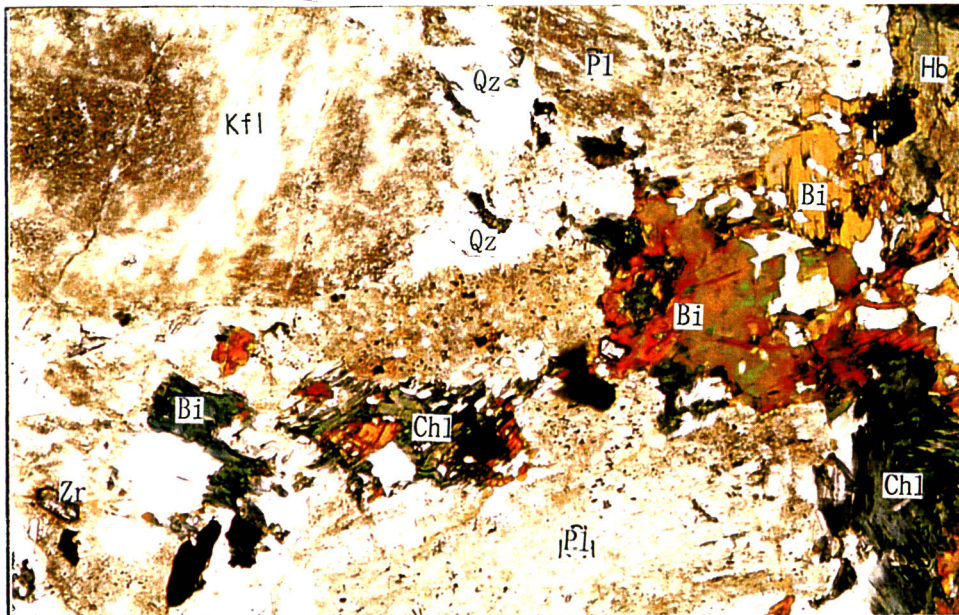
crossed nicols



Reflected light

0 0.4mm

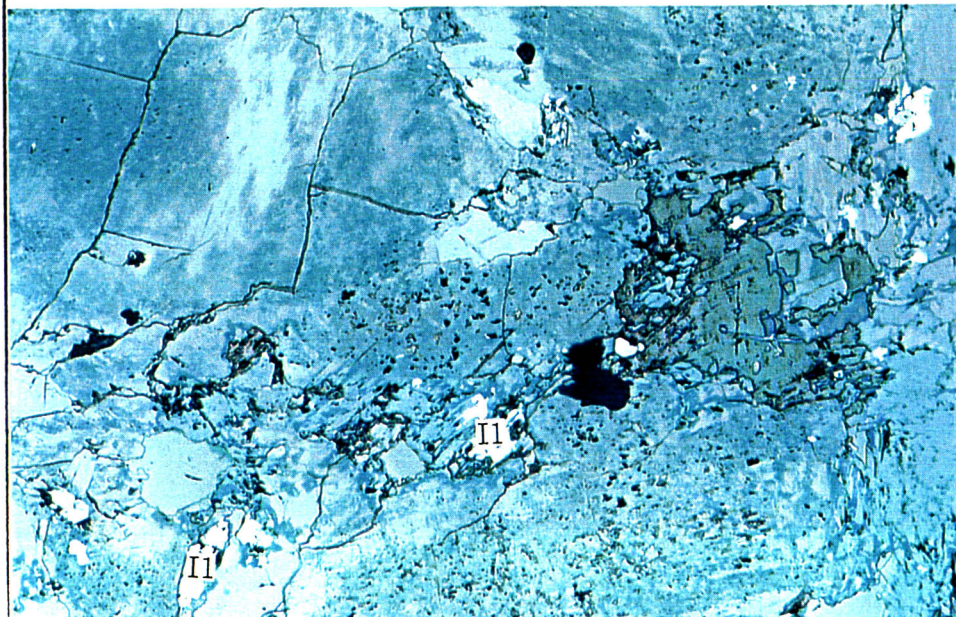
Film No. 0816 - 1, 2, 3



open nicol



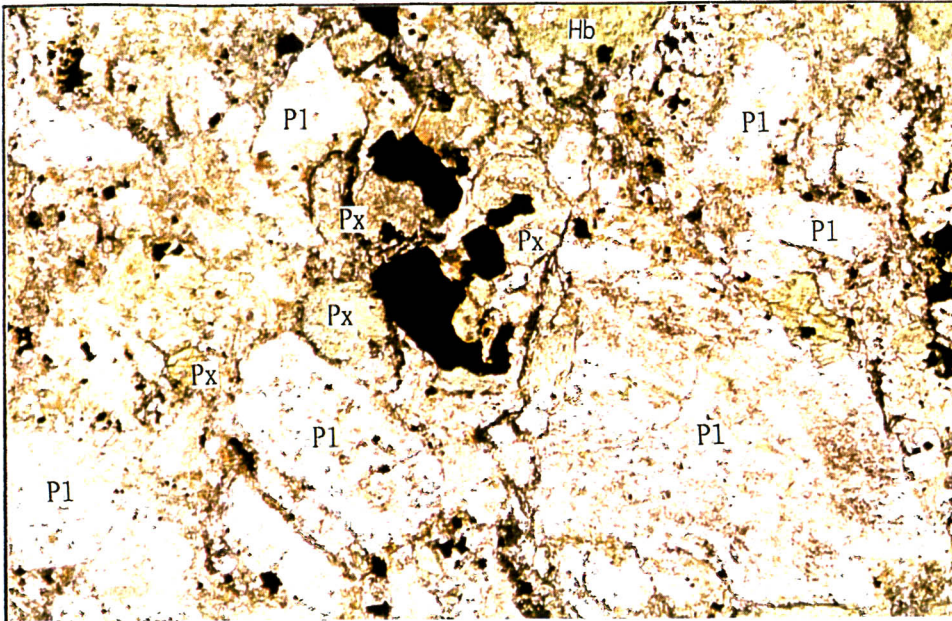
crossed nicols



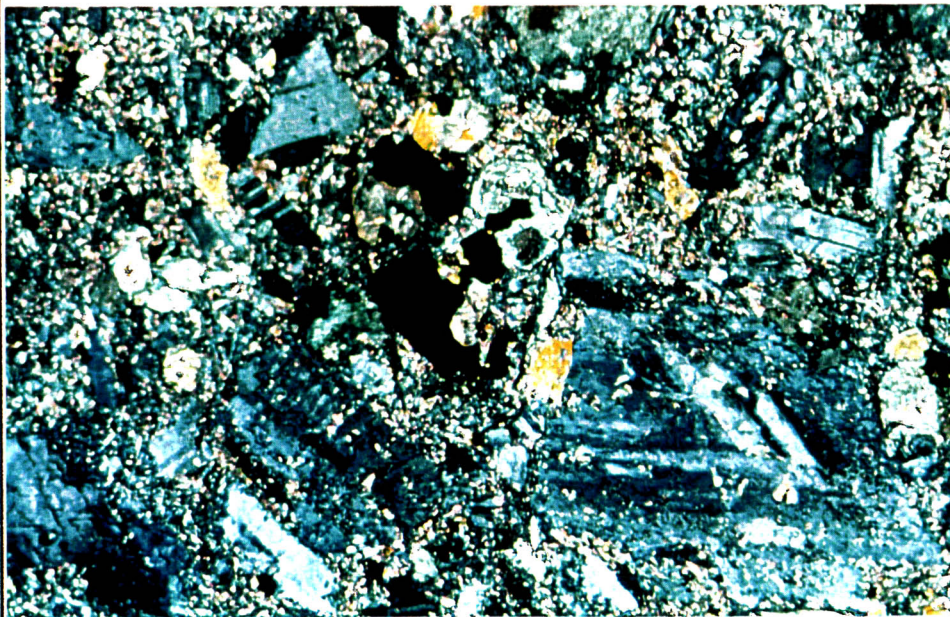
Reflected light

0 0.4mm

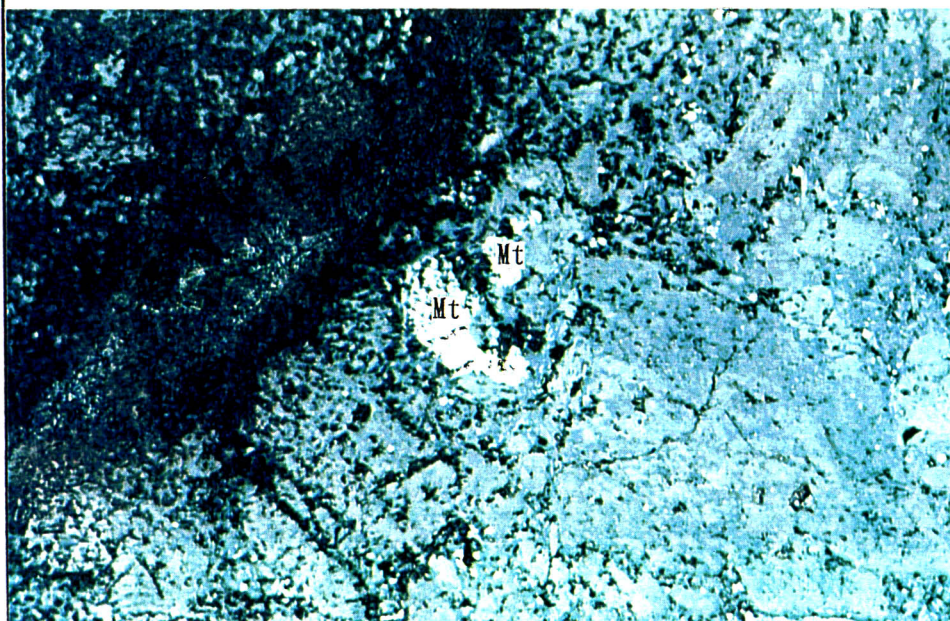
Film No. 0854-12, 13, 14



open nicol



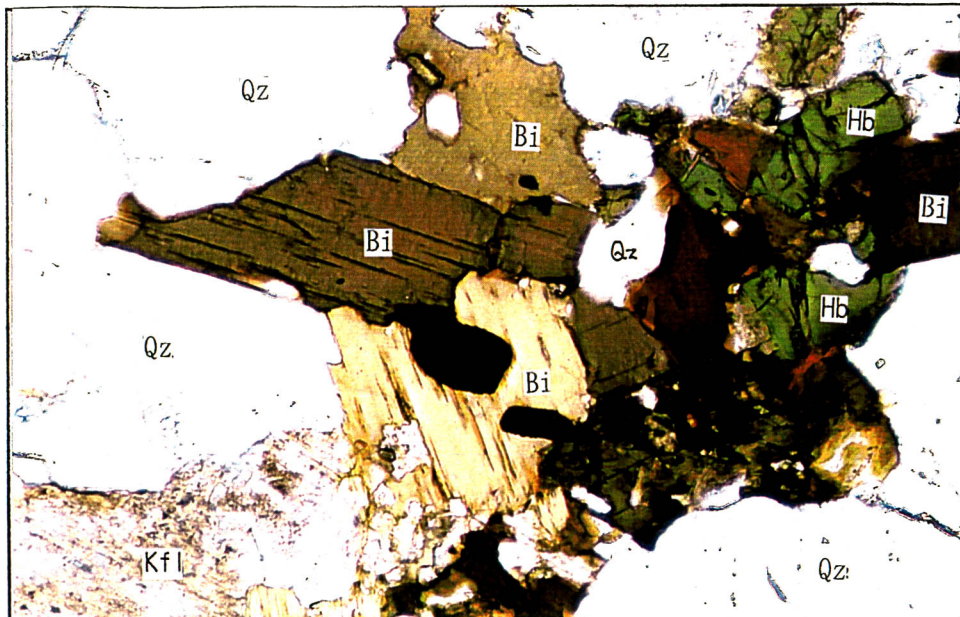
crossed nicols



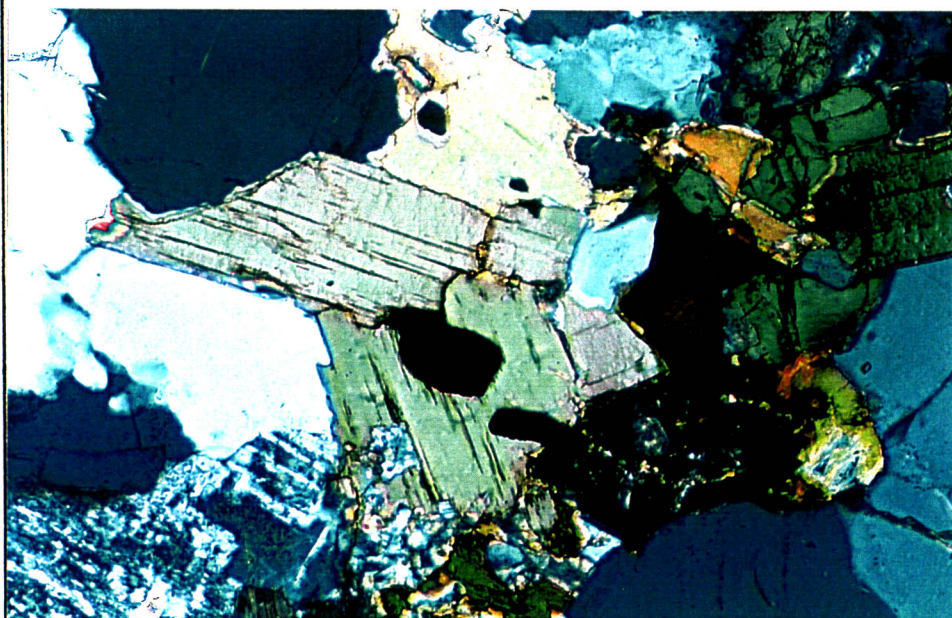
Reflected light

0 0.4mm

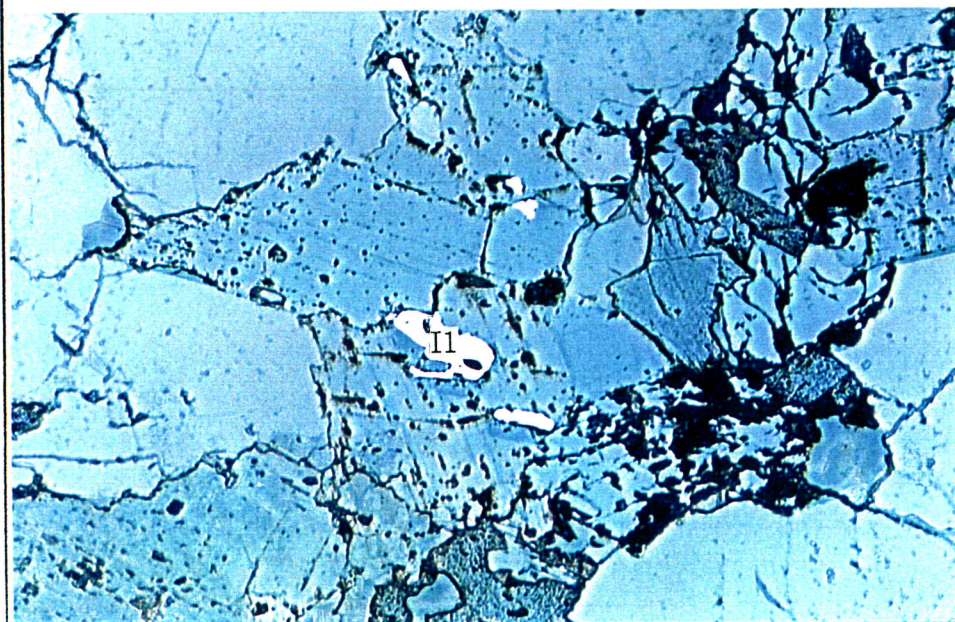
Film No. 0817 - 0.1, 2



open nicol



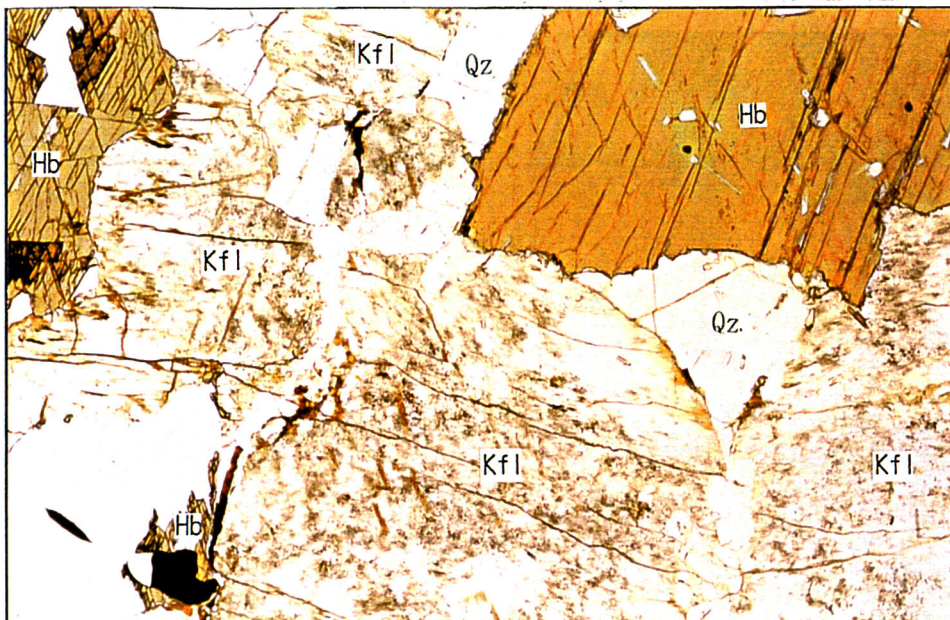
crossed nicols



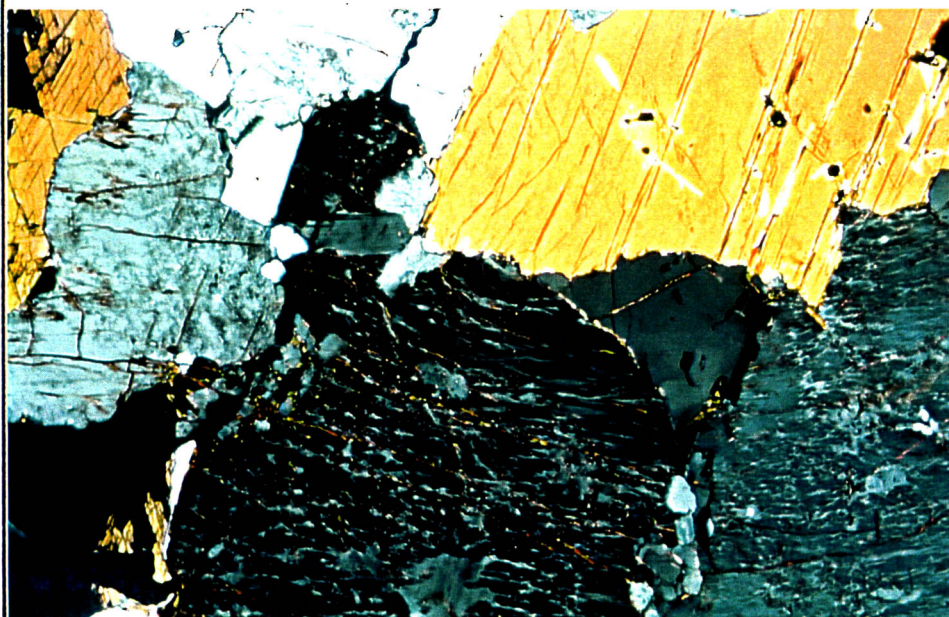
Reflected light

0 0.2mm

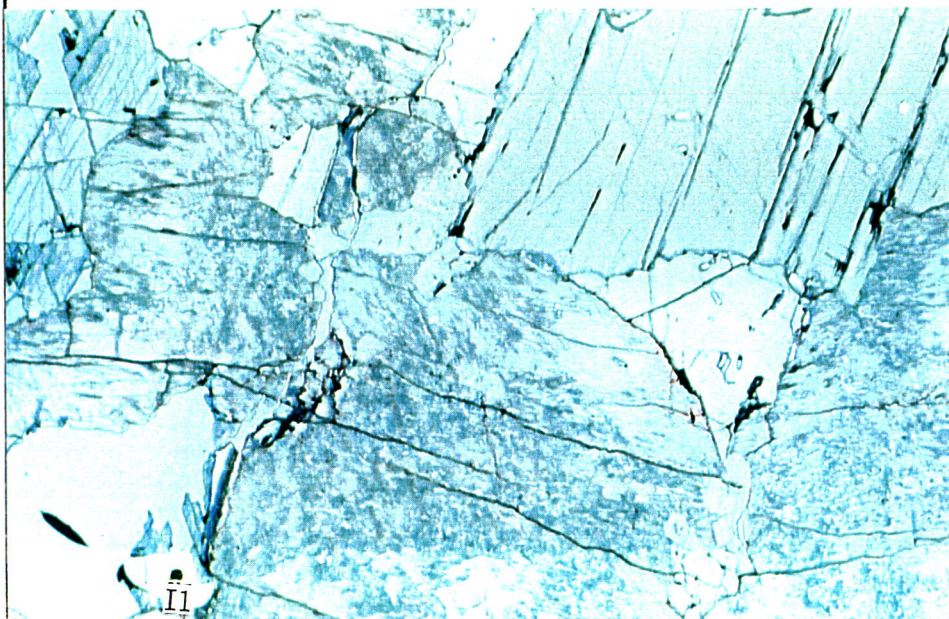
Film No. 0755-10.11.12



open nicol



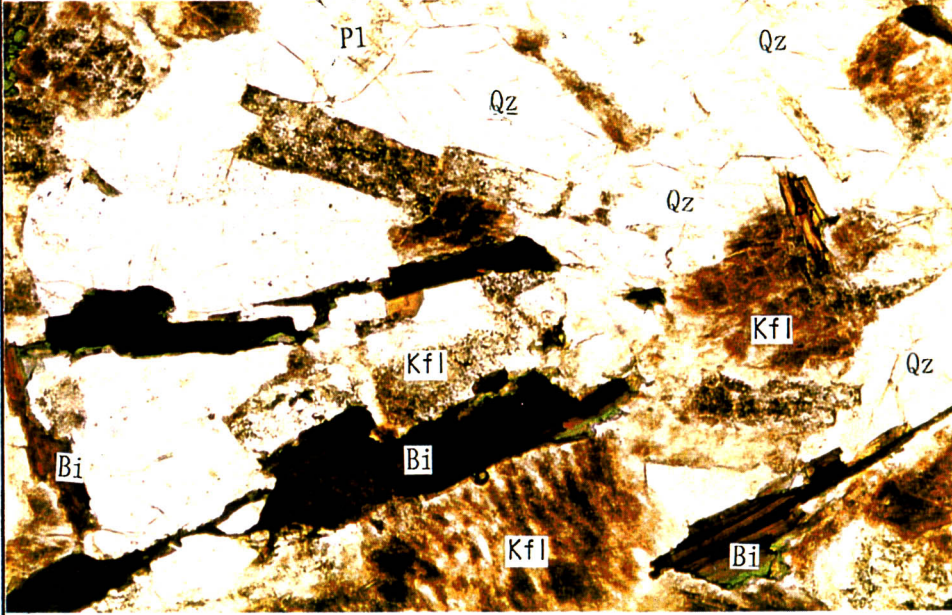
crossed nicols



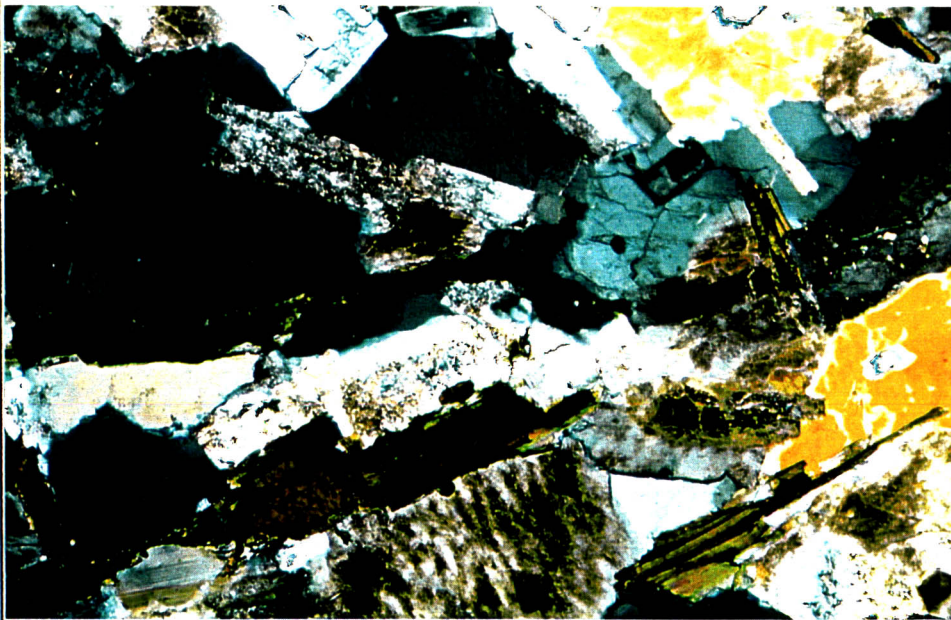
Reflected light

0 0.4mm

Film No. 2316 - 5.6.7



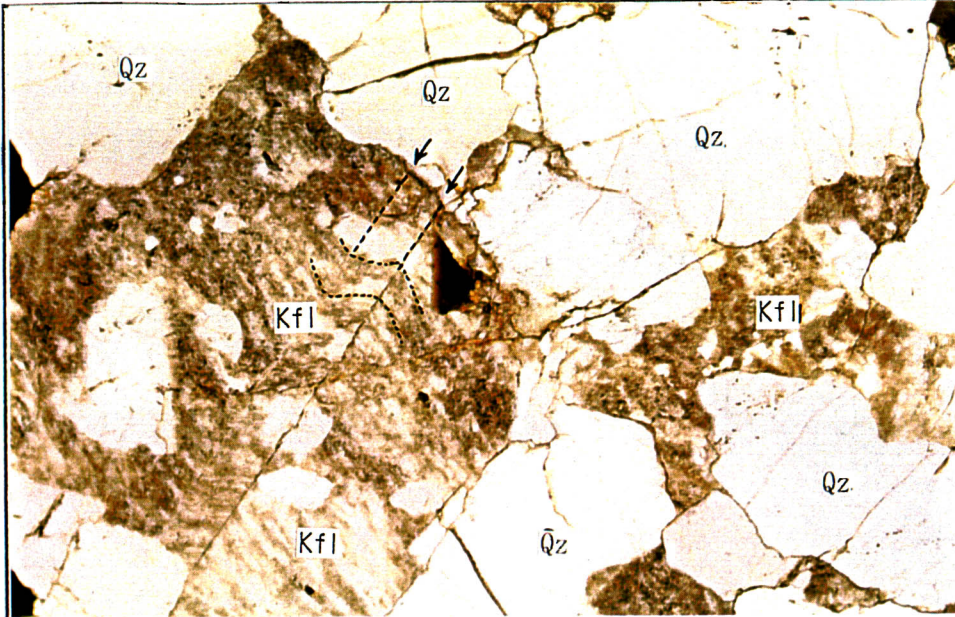
open nicol



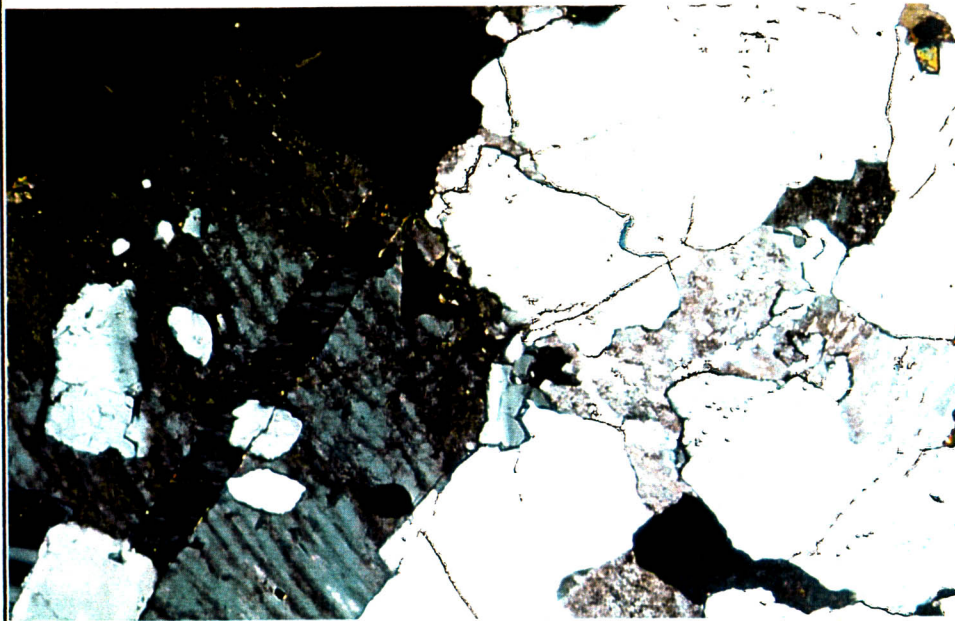
crossed nicols

0 0.4mm

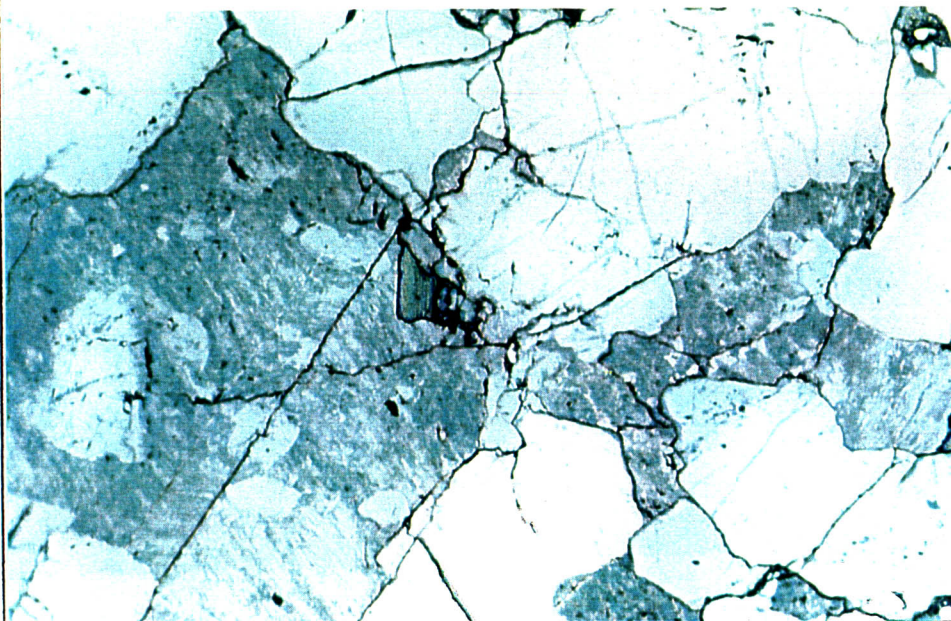
Film No. 0854 15.16



open nicol

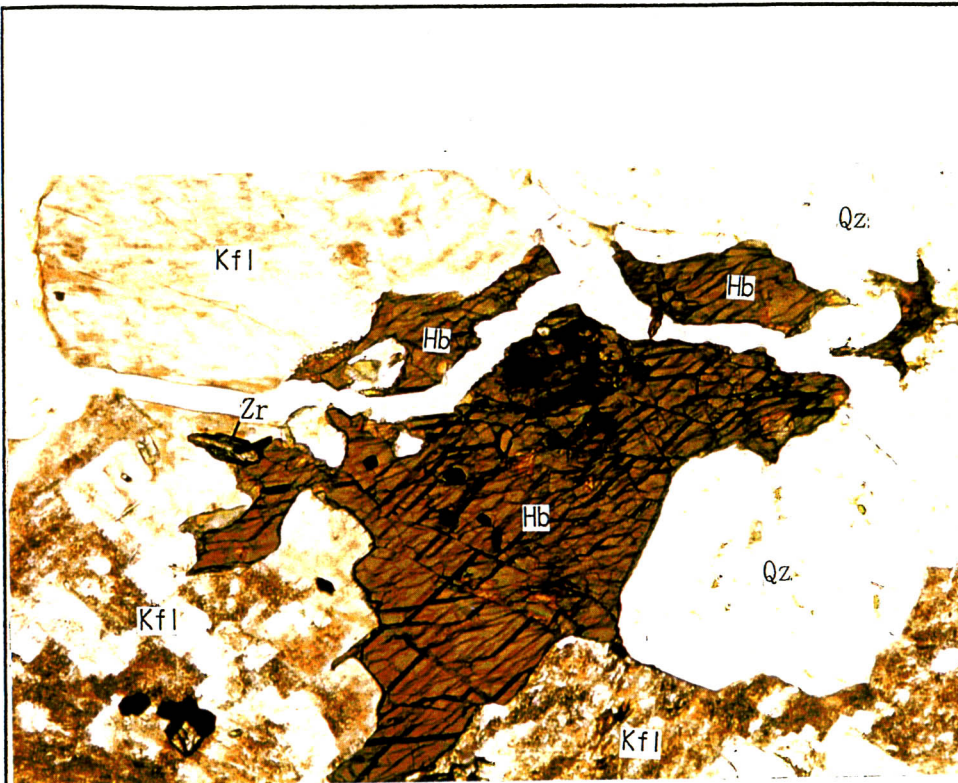


crossed nicols

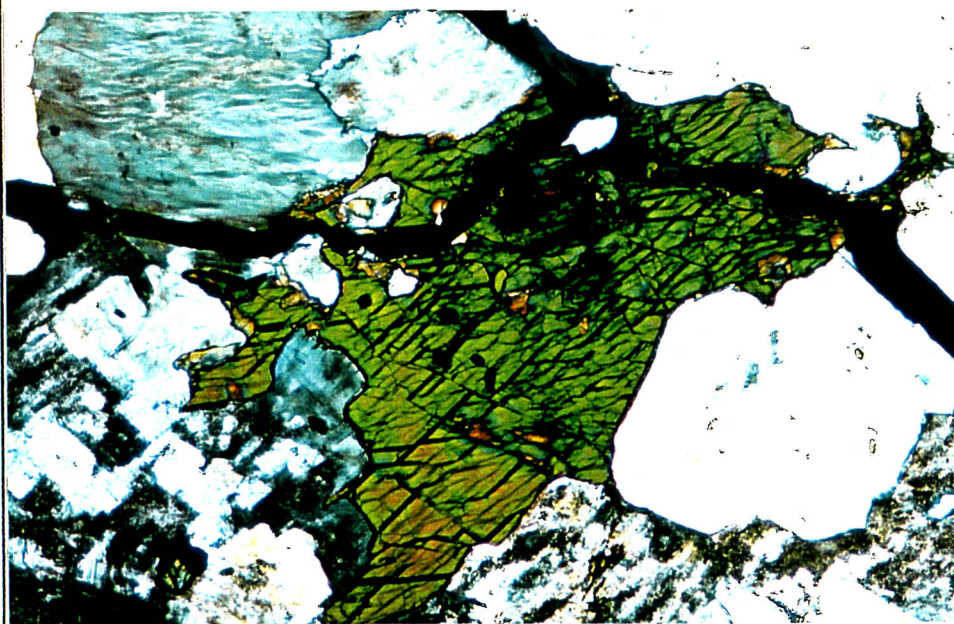


Reflected light

0 0.4mm
Film No. 0816 - 10, 11, 12



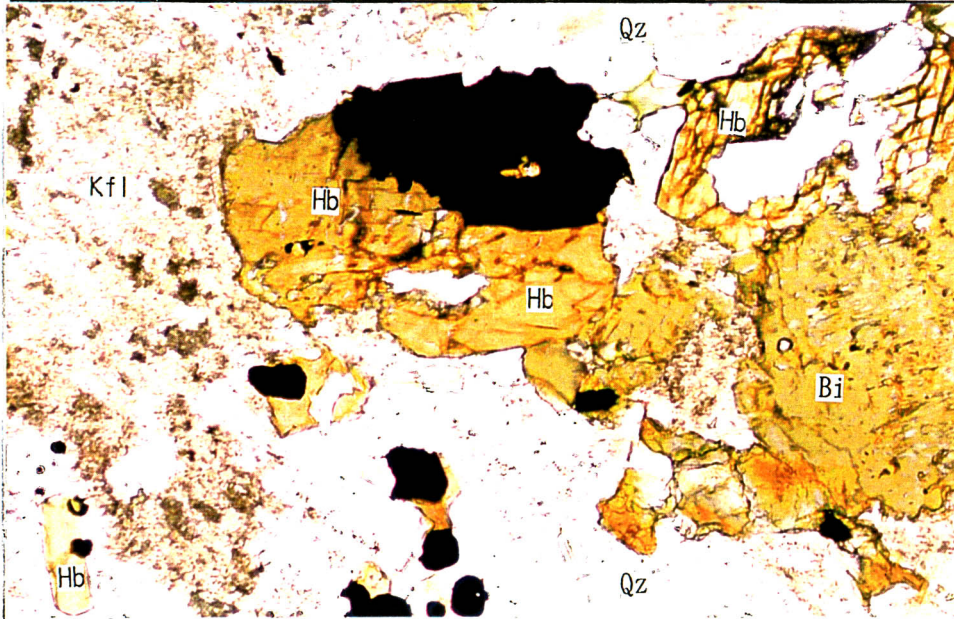
open nicol



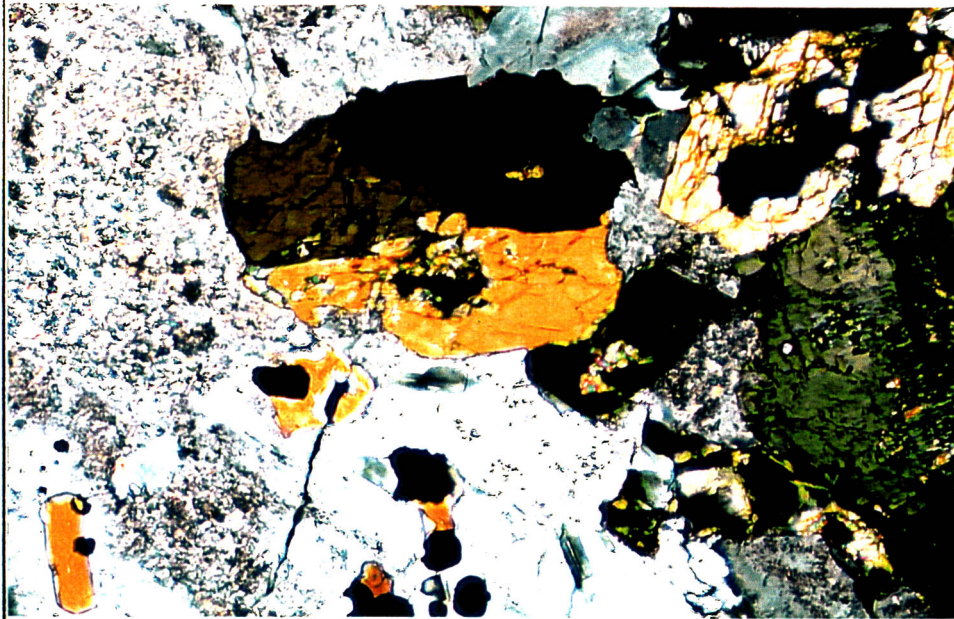
crossed nicols

0 0.4mm

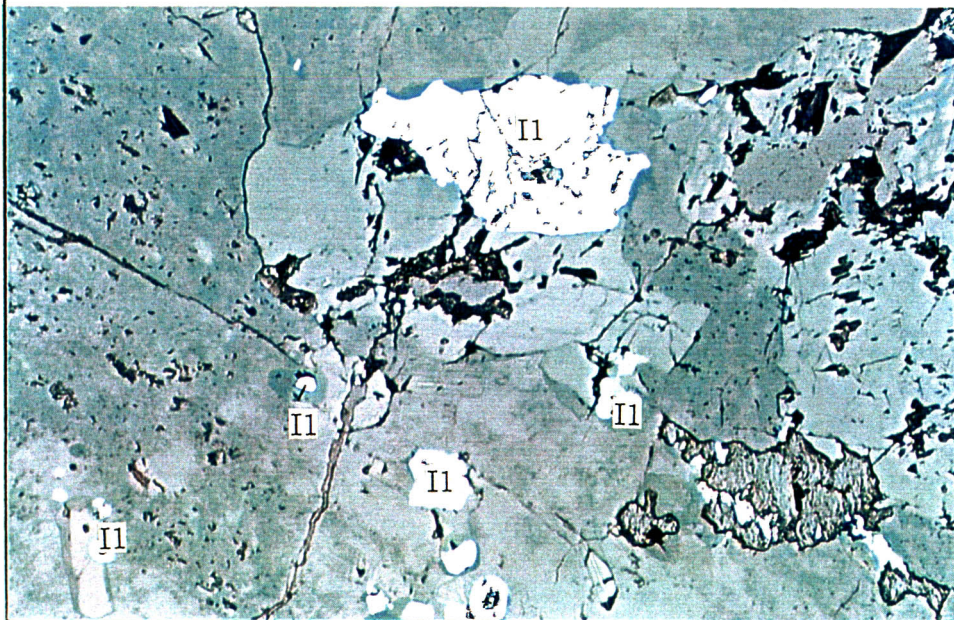
Film No. 0854-17, 18



open nicol

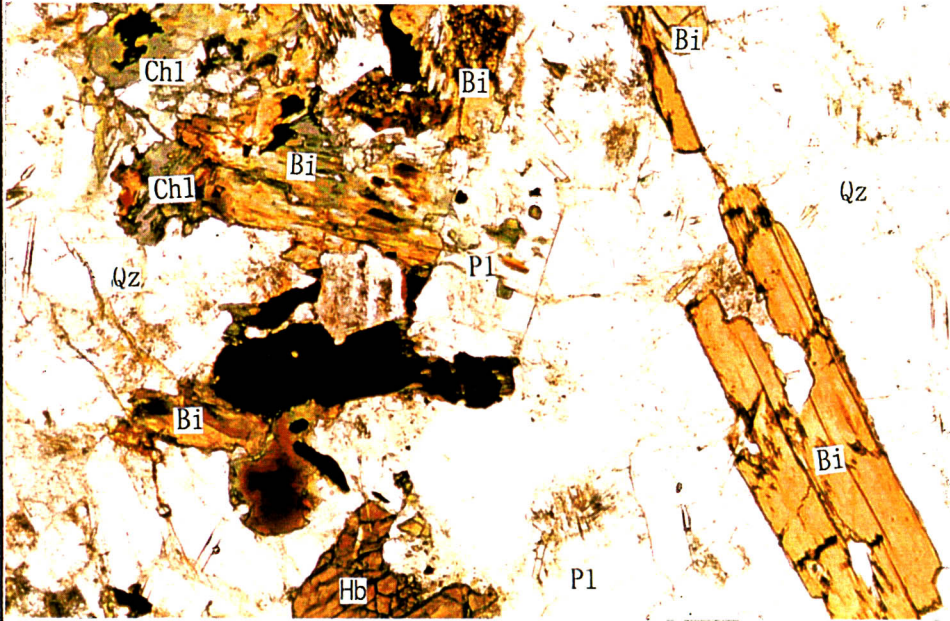


crossed nicols

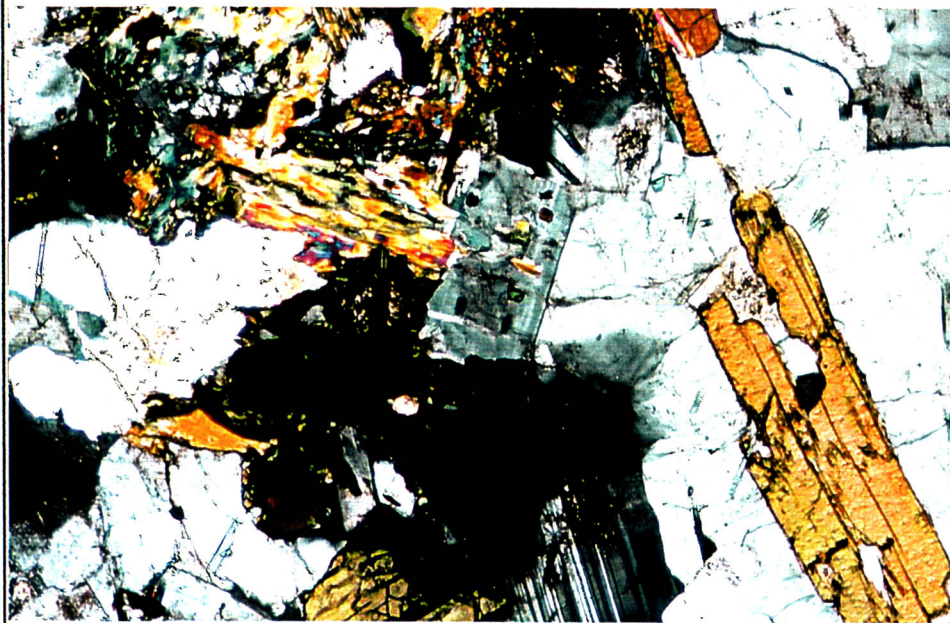


Reflected light

0 0.2mm
Film No. 0775-78,9



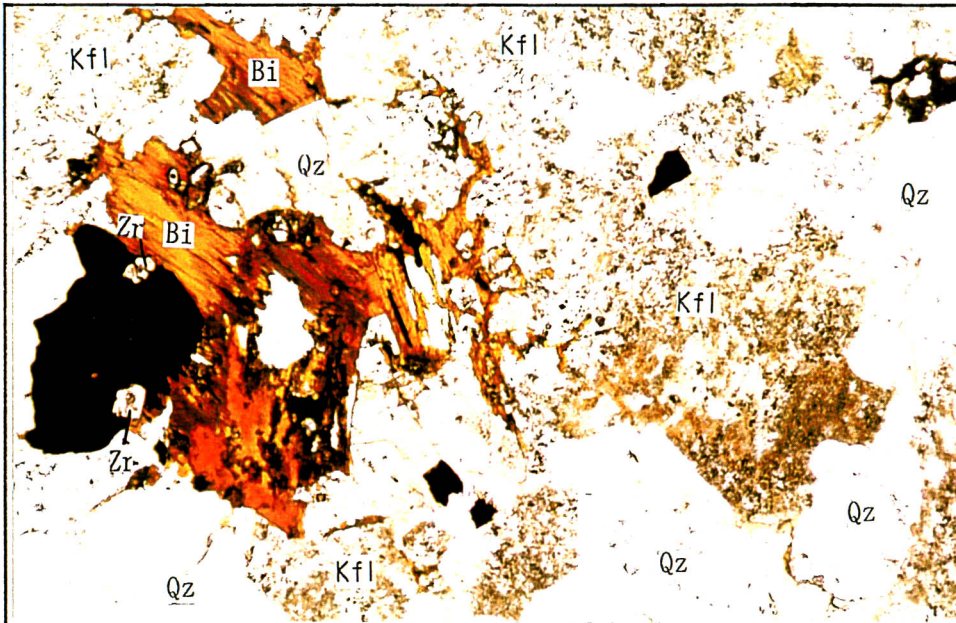
open nicol



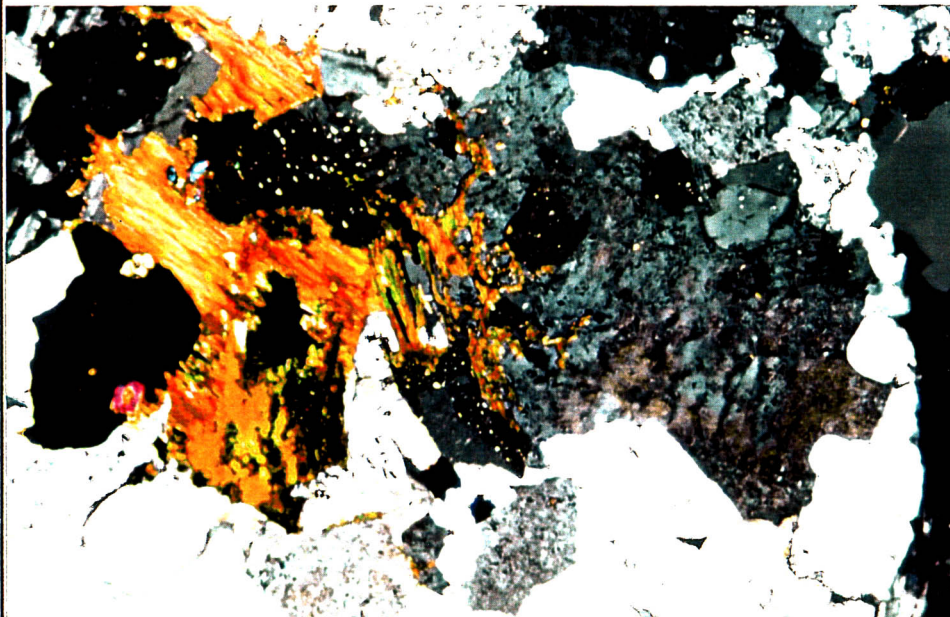
crossed nicols

0 0.4mm

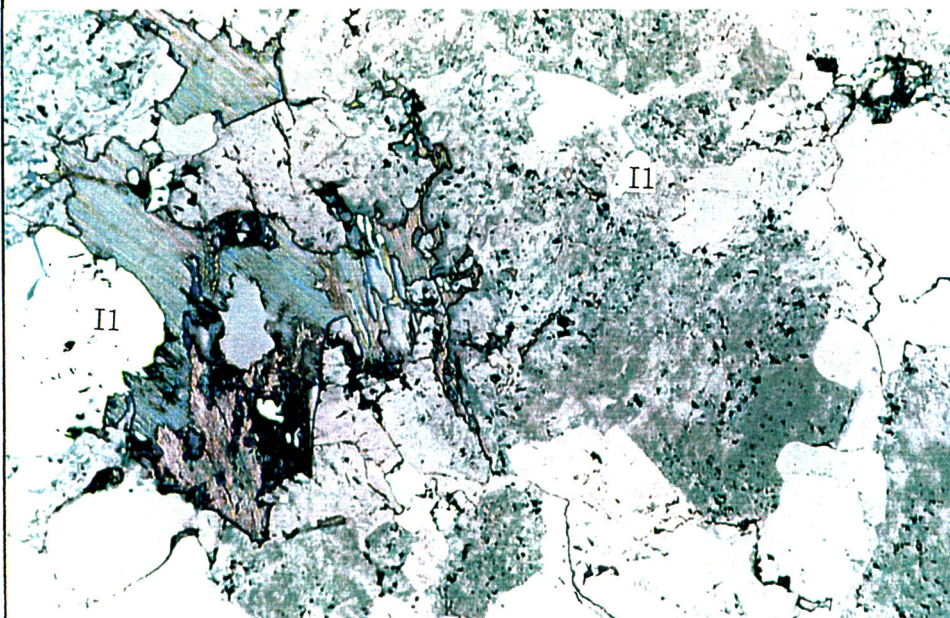
Film No. 0854-19.20



open nicol



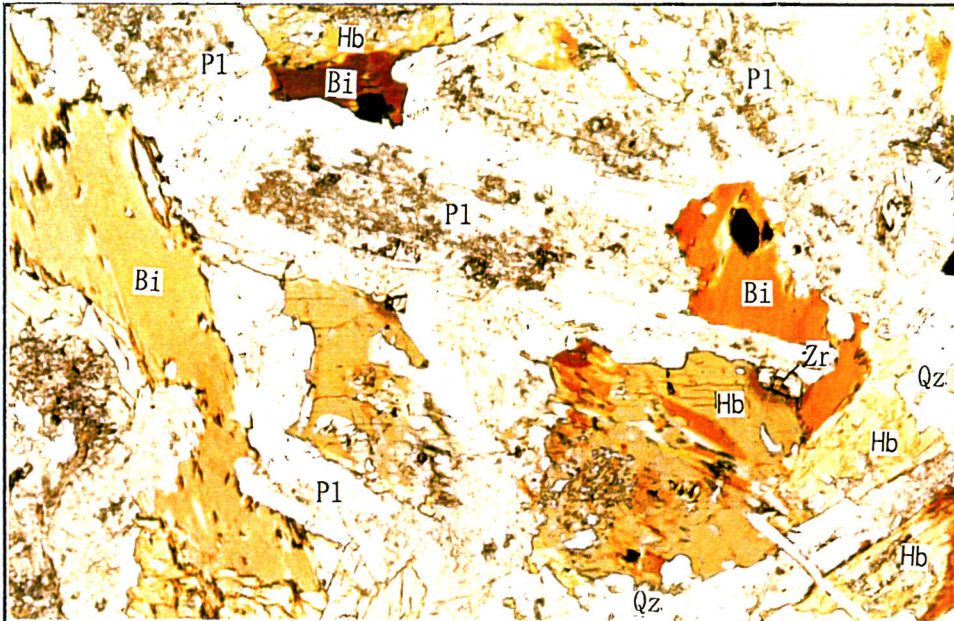
crossed nicols



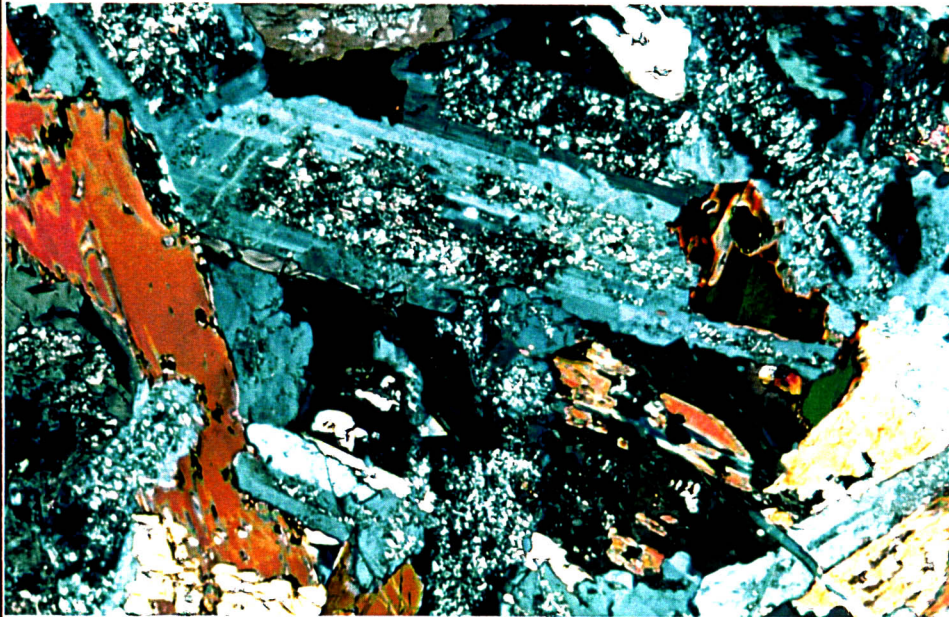
Reflected light

0 0.4mm

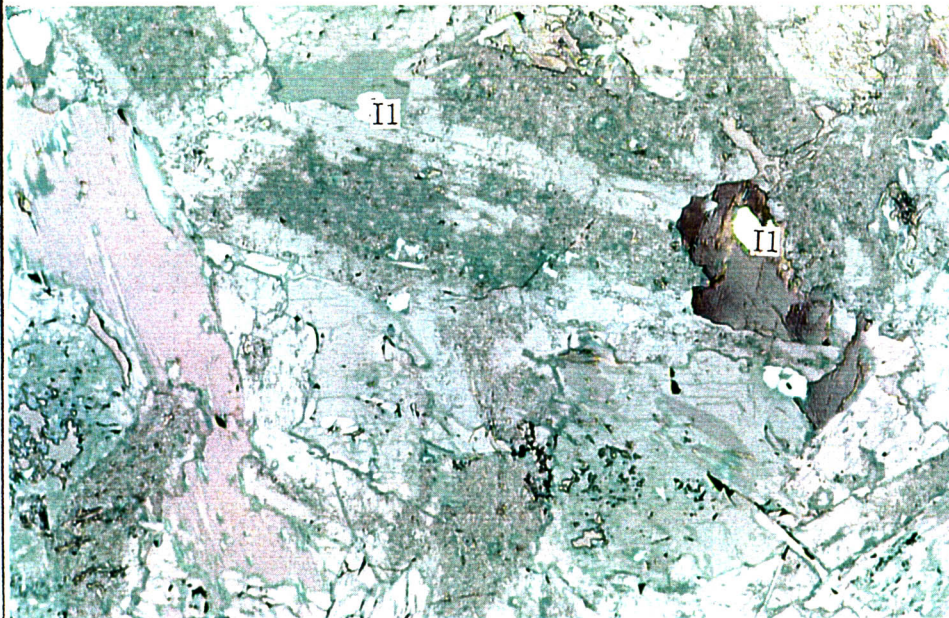
Film No. 0376 - 13, 14, 15



open nicol



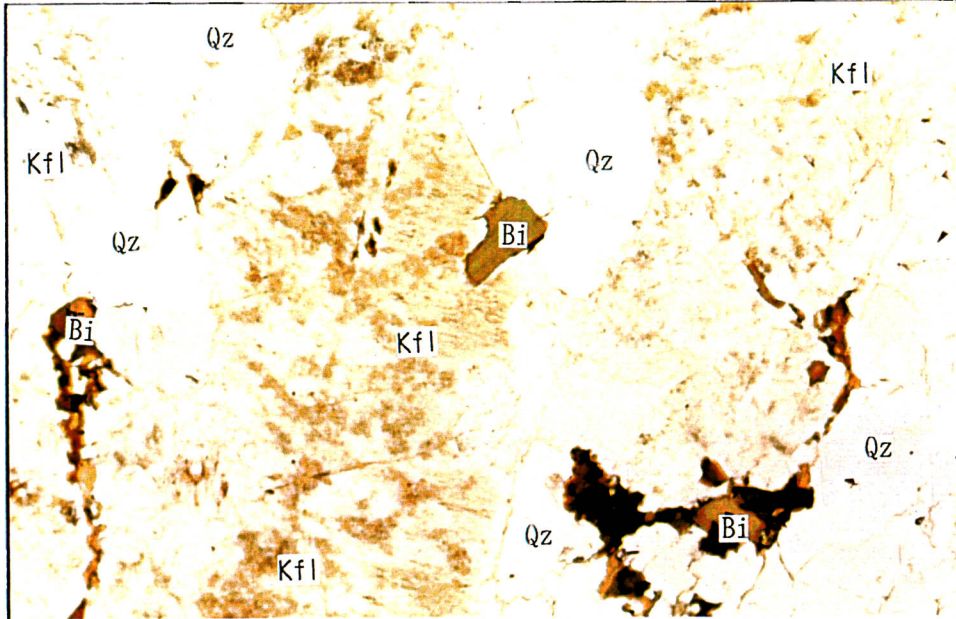
crossed nicols



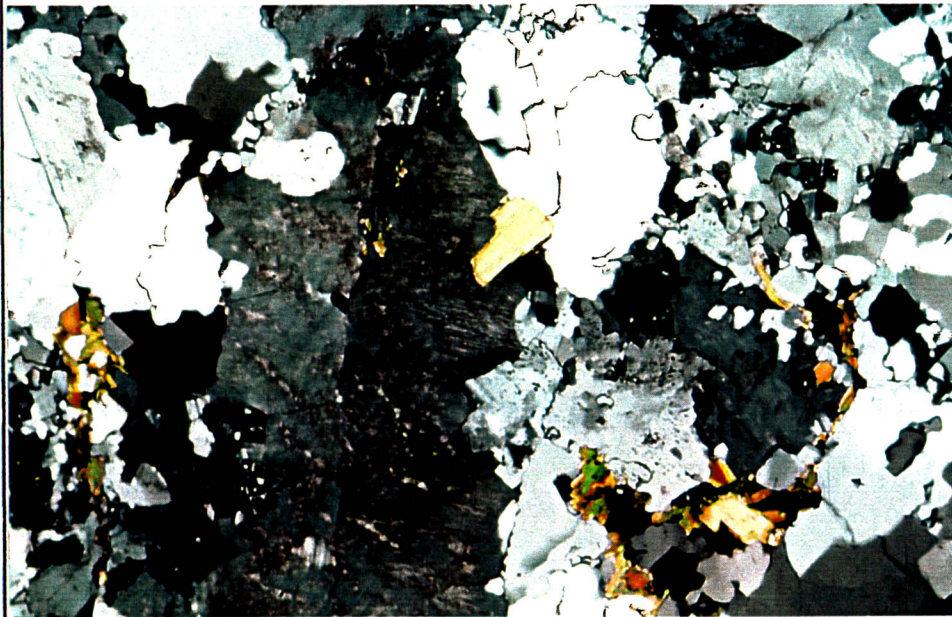
Reflected light

0 0.4mm

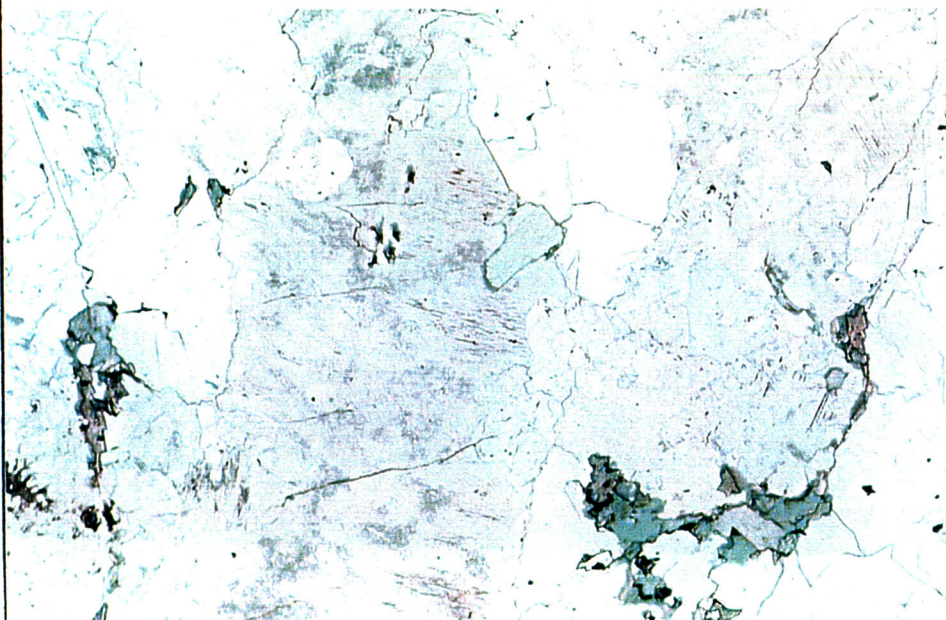
Film No. 0216 - 16, 17, 18



open nicol



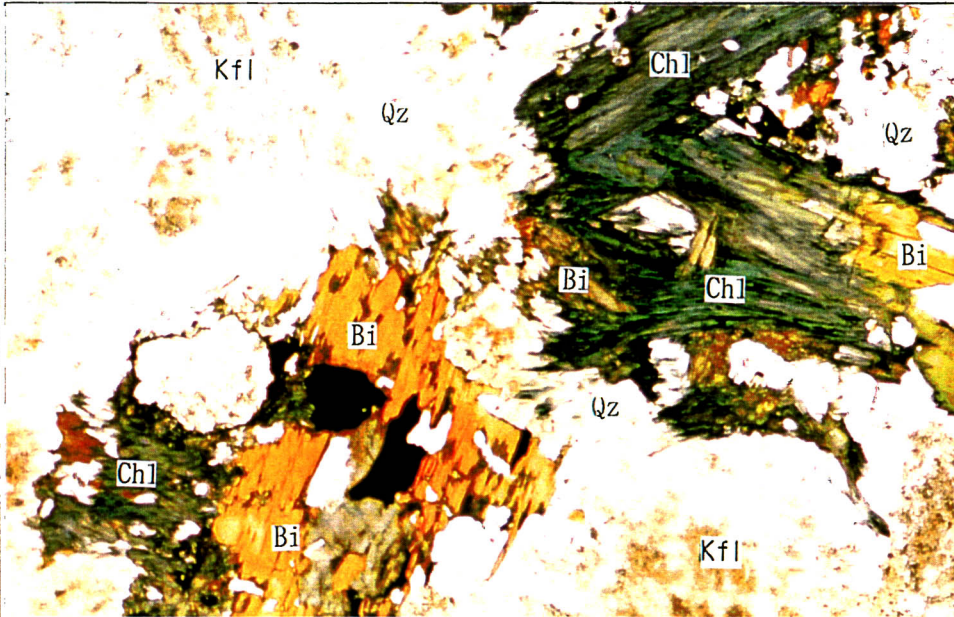
crossed nicols



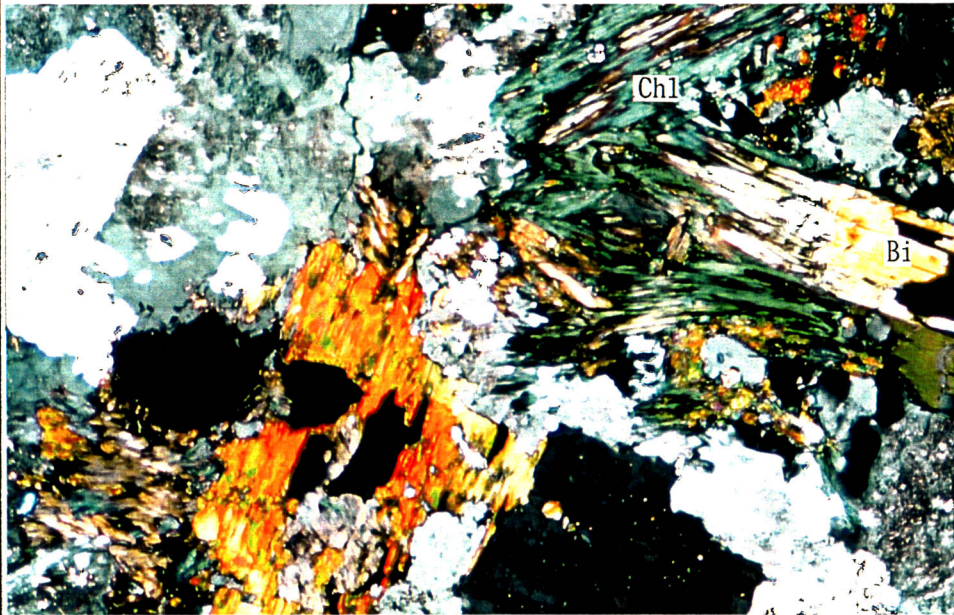
Reflected light

0 0.4mm

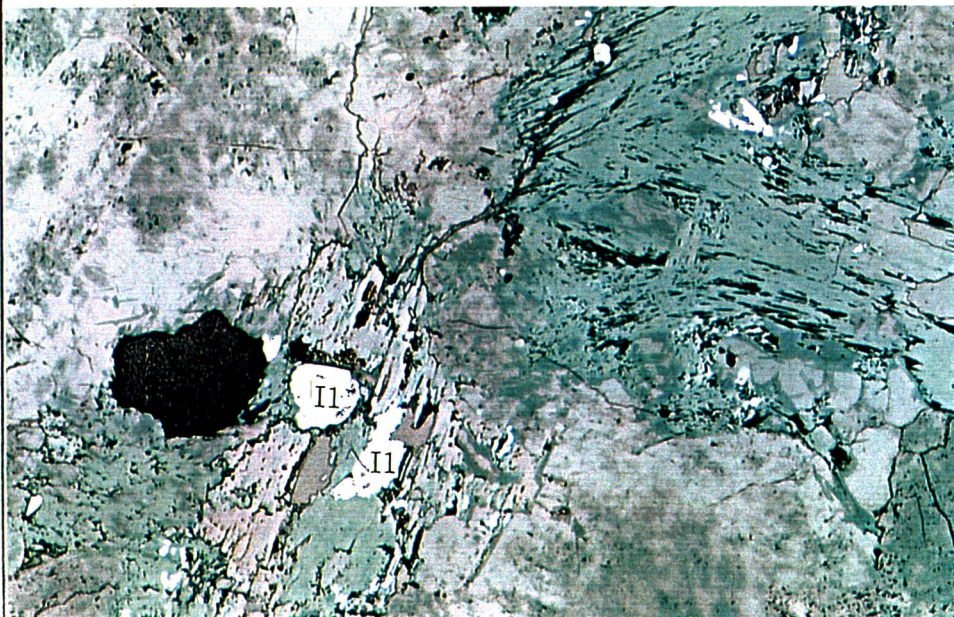
Film No. 0876 - 19,20,21



open nicol



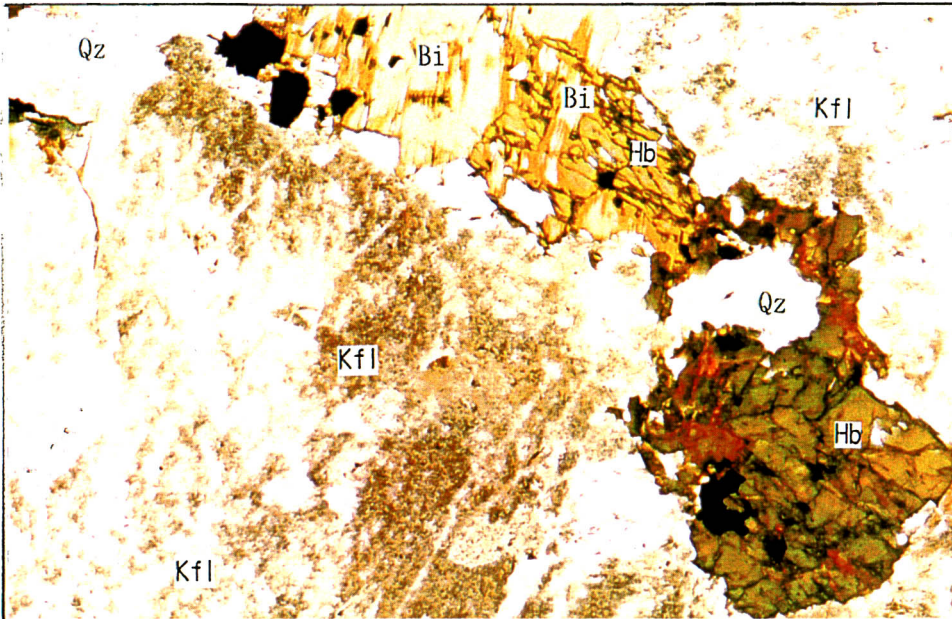
crossed nicols



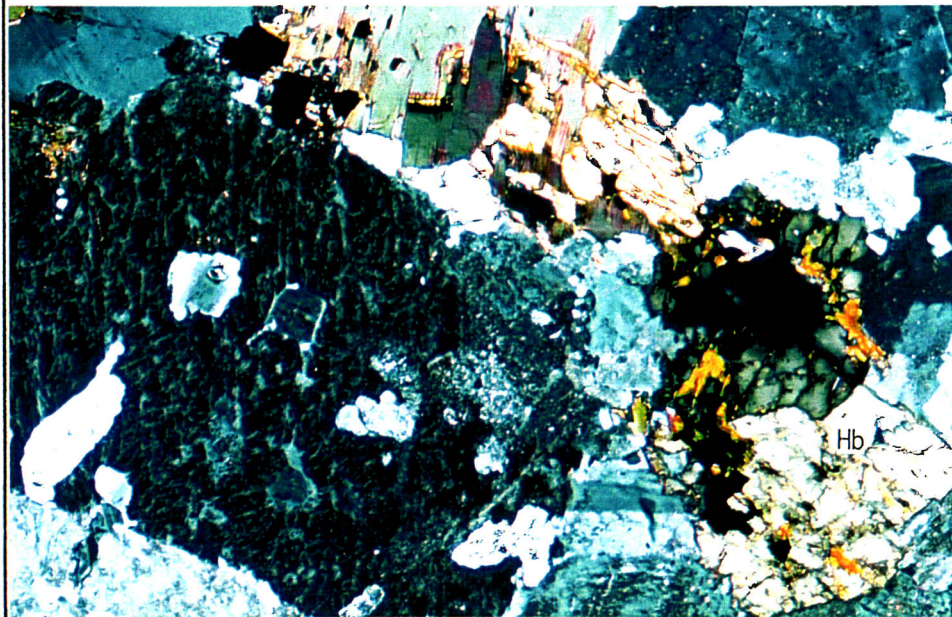
Reflected light

0 0.4mm

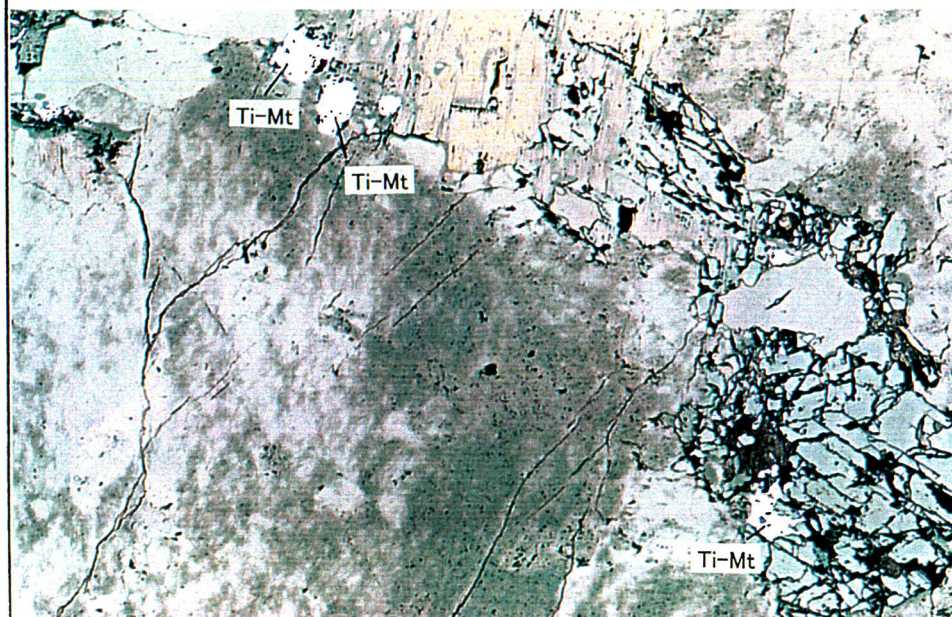
Film No. 0775-19.20.21



open nicol



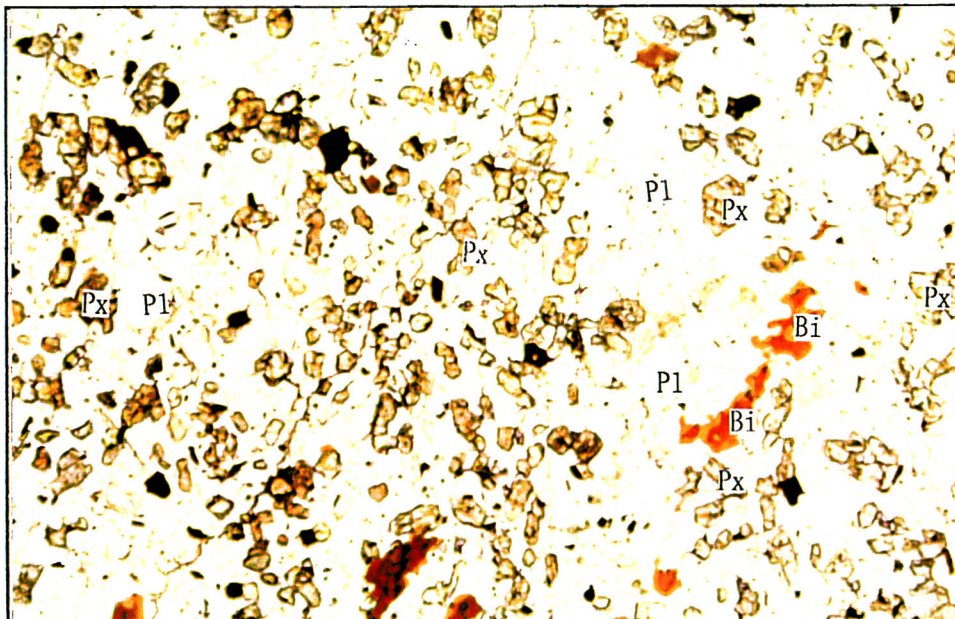
crossed nicols



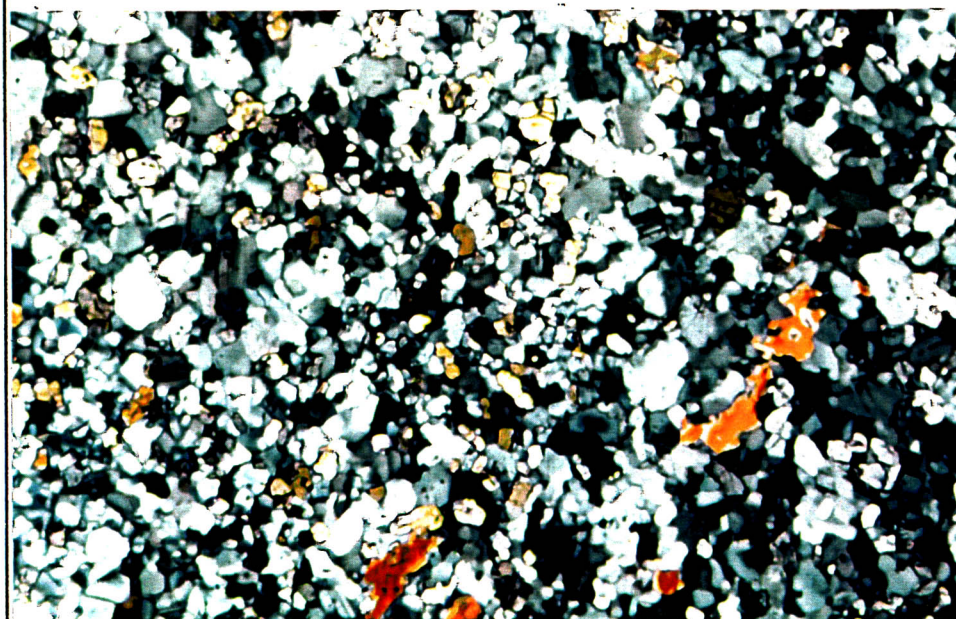
Reflected light

0 0.4mm

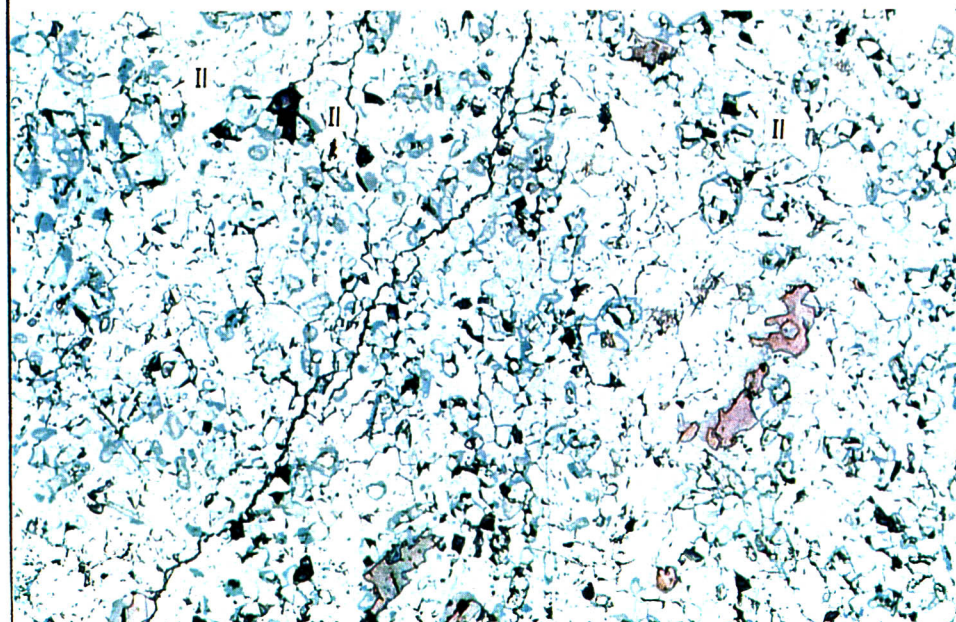
Film No. 0775-22.23.24



open nicol



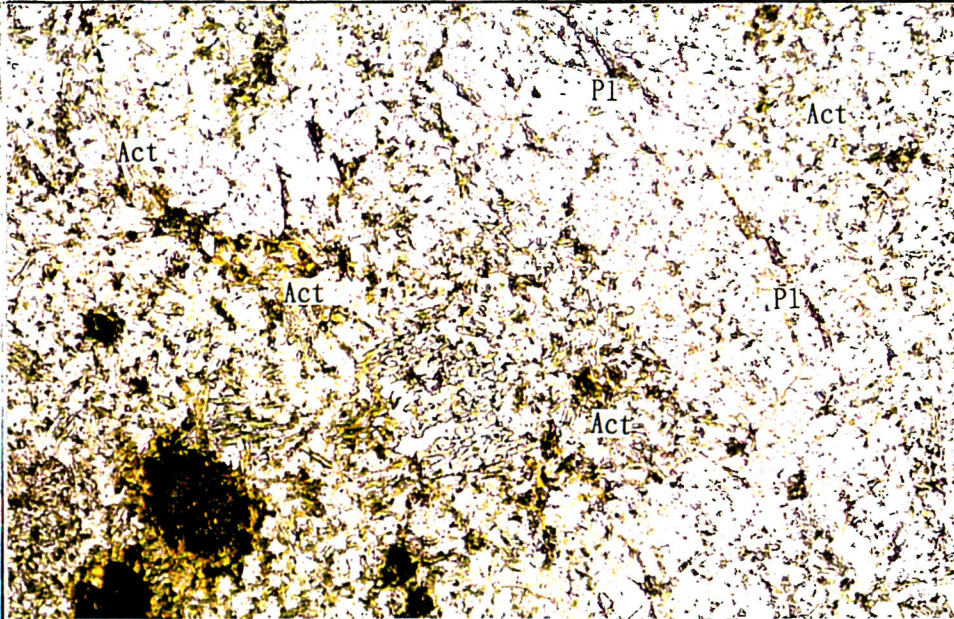
crossed nicols



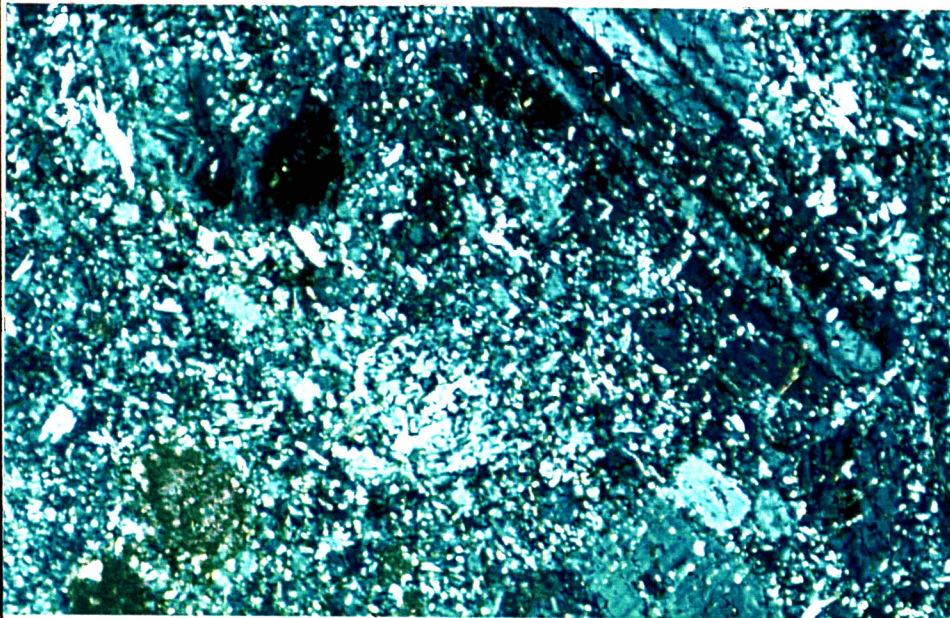
Reflected light

0 0.4mm

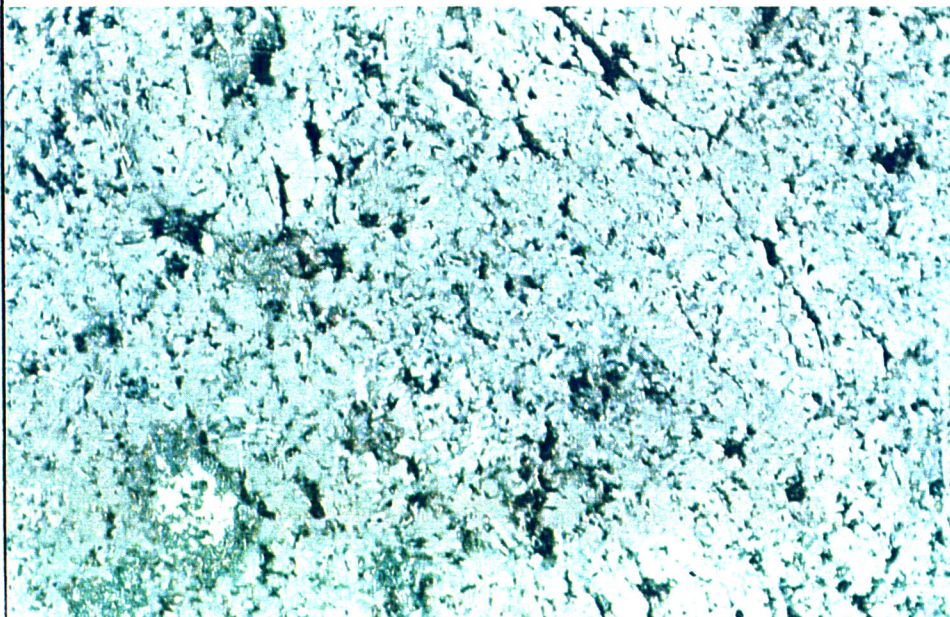
Film No. 0817 - 6, 7, 8



open nicol



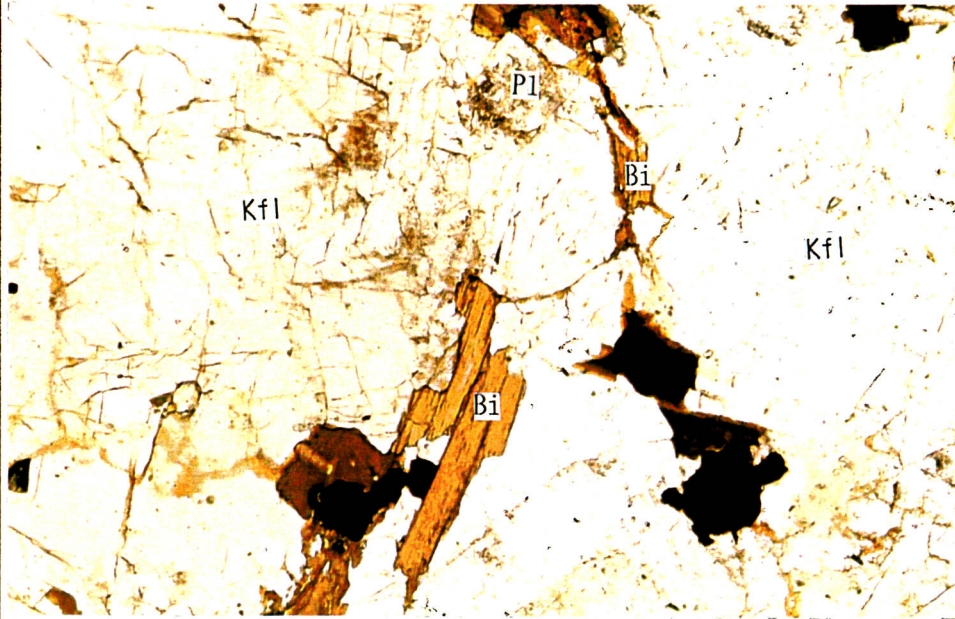
crossed nicols



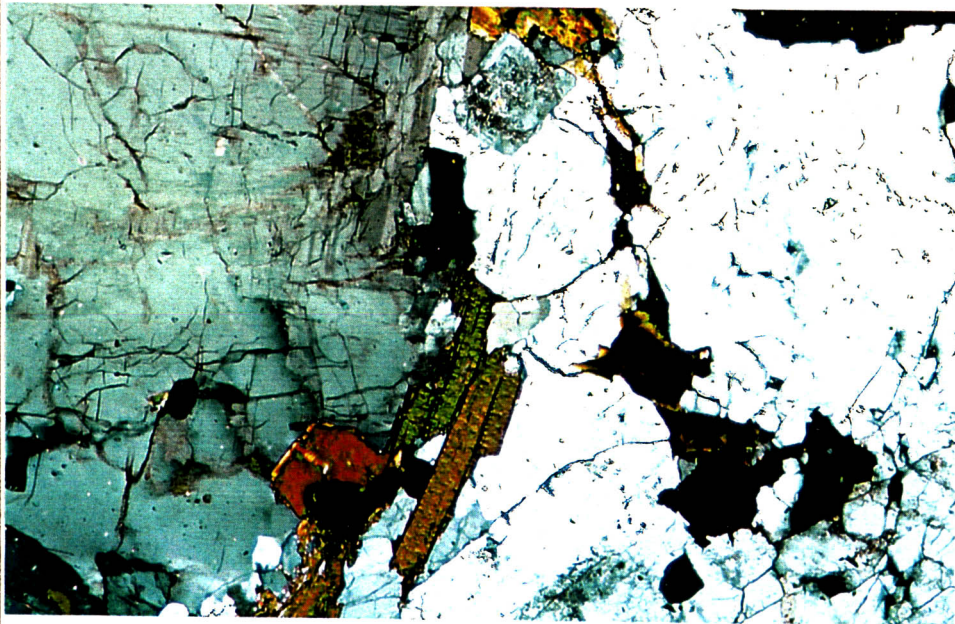
Reflected light

0 0.2mm

Film No. 0817 - 9. 10. 11



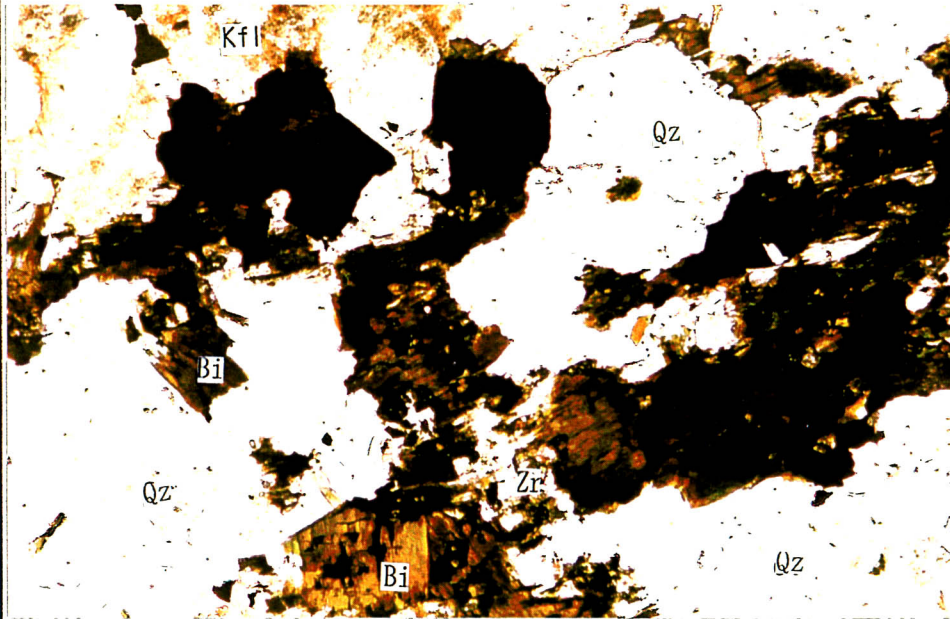
open nicol



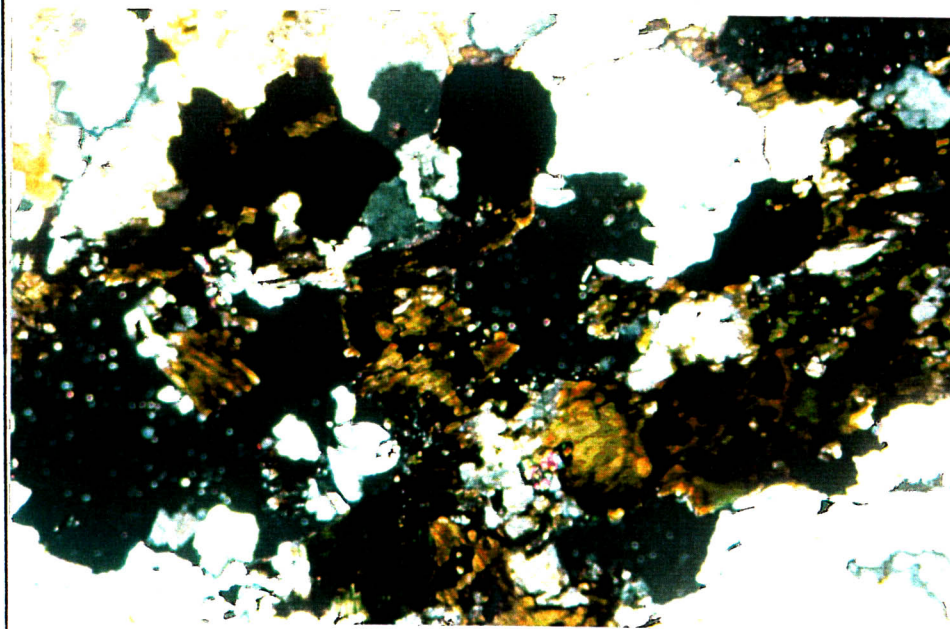
crossed nicols

0 0.4mm

Film No. 0854-21,22



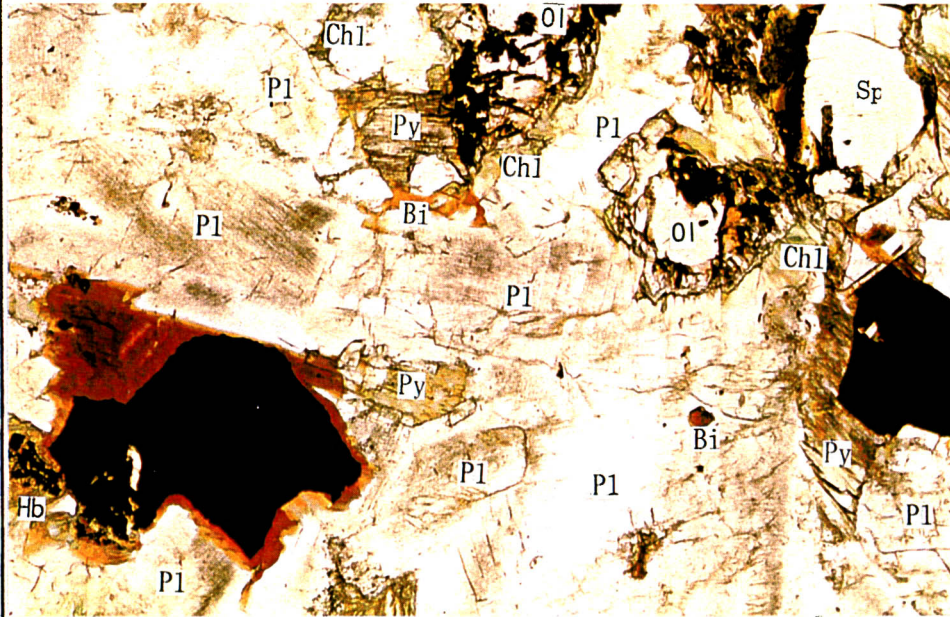
open nicol



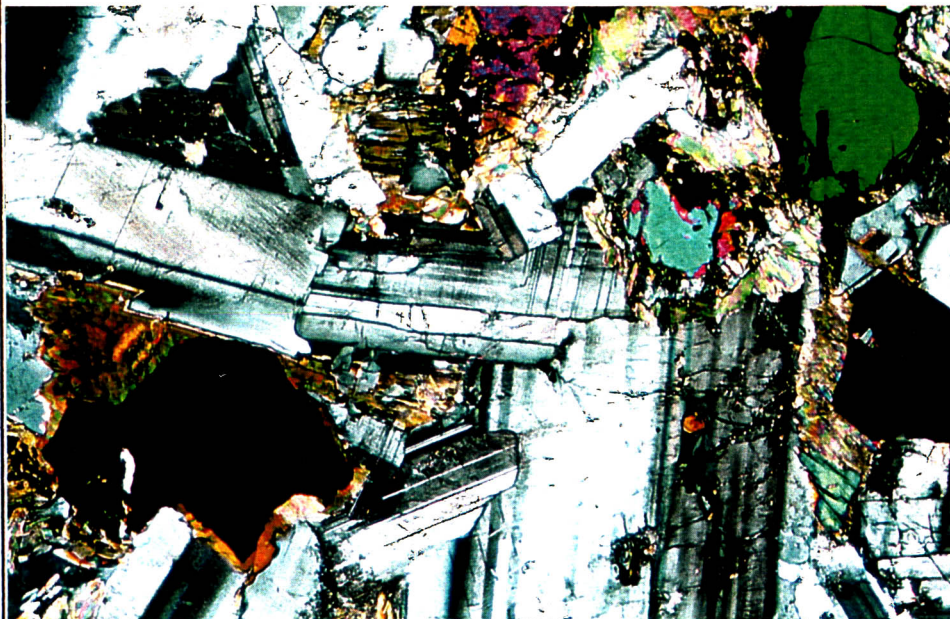
crossed nicols

0 0.4mm

Film No. 0854-23.24



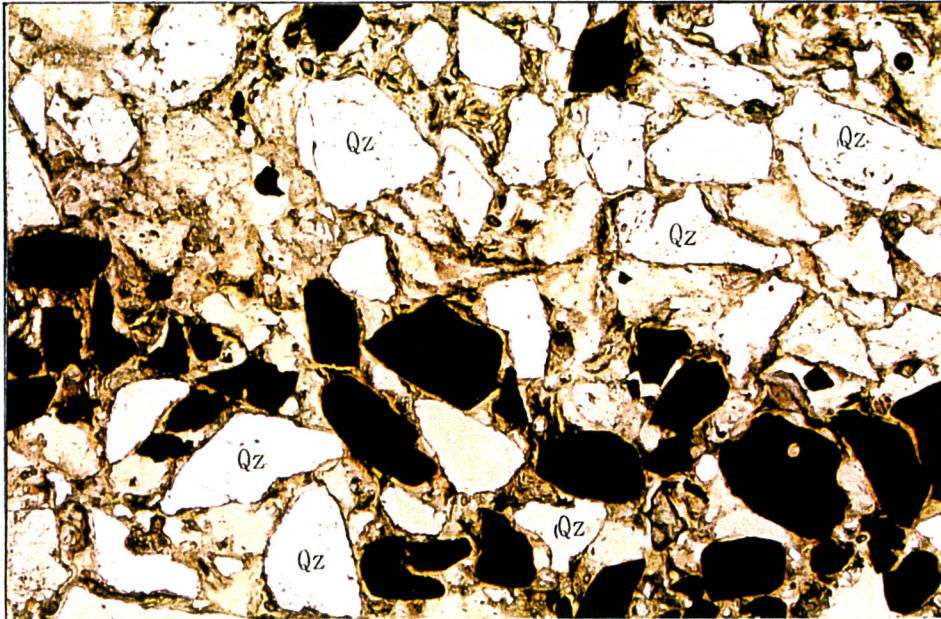
open nicol



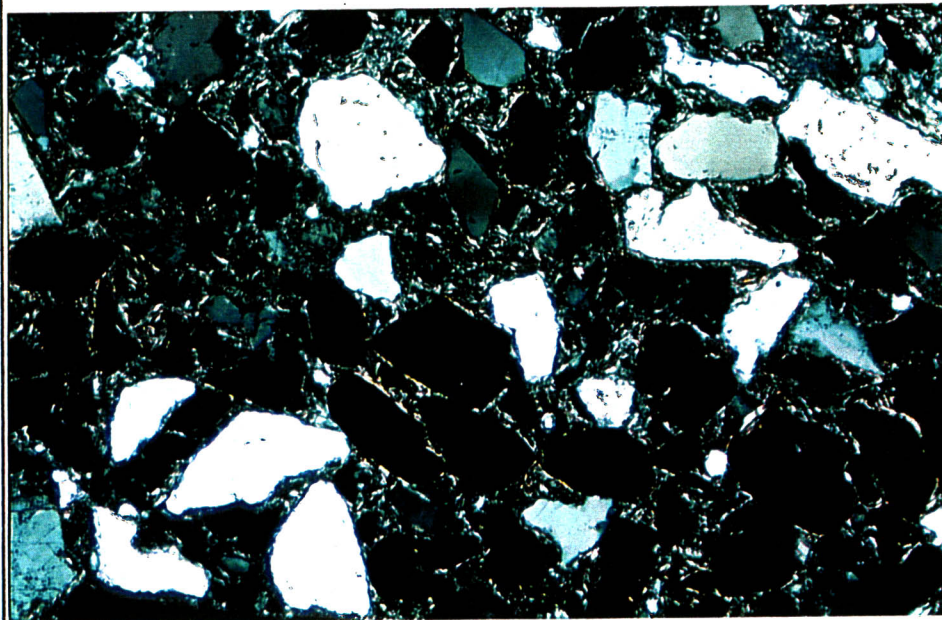
crossed nicols

0 0.4mm

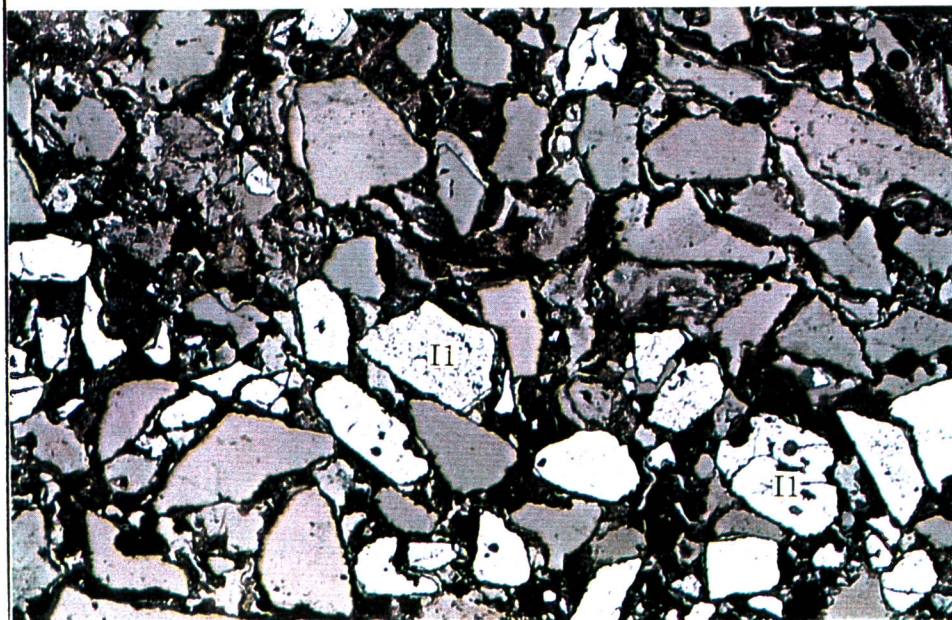
Film No. 0853-2.3



open nicol



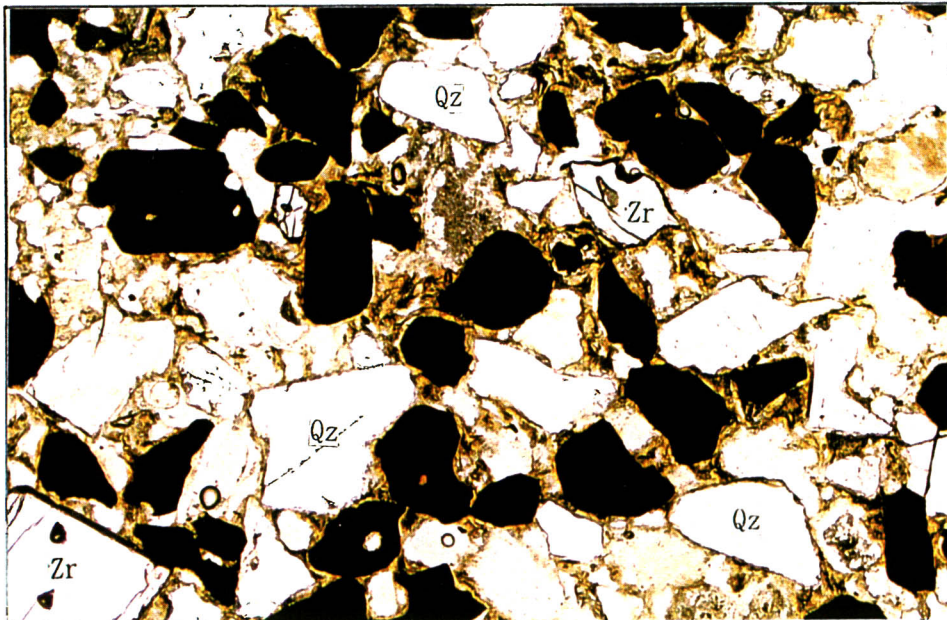
crossed nicols



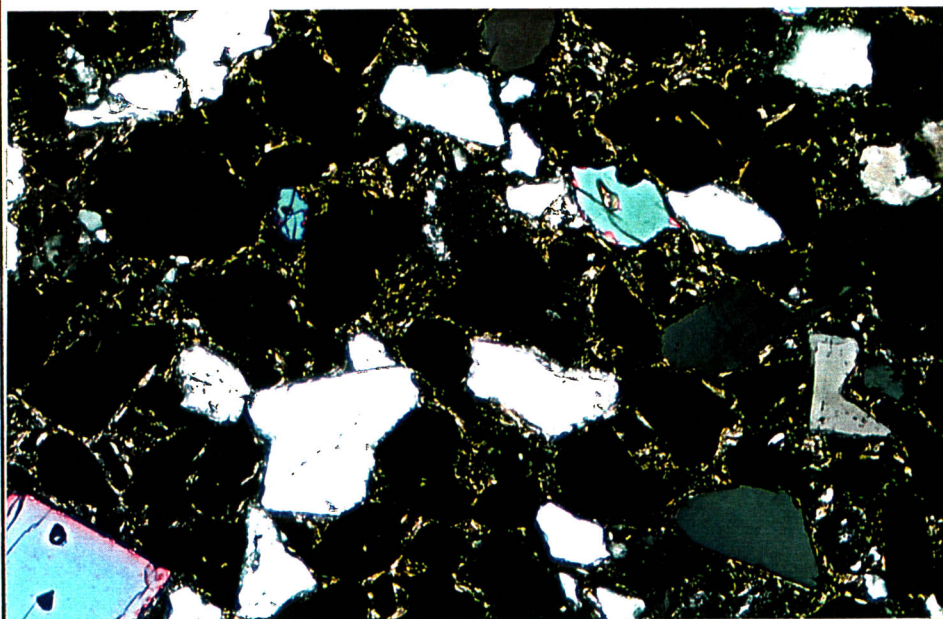
Reflected light

0 0.4mm

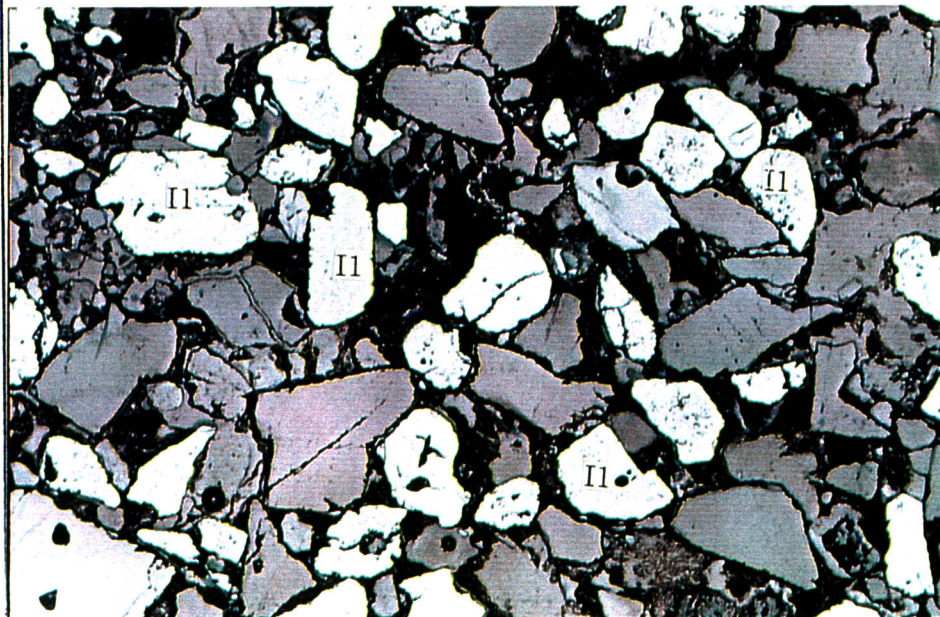
Film No. 0854-4, 5, 6



open nicol



crossed nicols



Reflected light

0 0.4mm

Film No. 2854-1,2,3

Appendix 2-4 Results of X-Ray Diffraction Analysis

Appendix 2-4 Results of X-Ray Diffraction Analysis

Sample no.	Locality	Rock description	Qz	Kol	Ill	Smc	Ilm	Pl	K-f	Cpx	Amp	Tor
1 U70/50		ilmenite-bearing clayey sand	⊙	○		○				.		
2 MJBK-21	41.0m	ilmenite-bearing clayey sand	⊙	△		○	.	△		△		
3 MJBK-34	43.0m	ilmenite-bearing clayey sand	⊙	△		○		.	△			
4 MJBK-29	20.0m	clayey sand	⊙	○		⊙						
5 MJBK-29	30.0m	clayey sand	⊙	○		⊙						
6 MJBK-29	40.0m	clayey sand	⊙	△	○	○		⊙				.
7 MJBK-29	43.5m	ilmenite-bearing clayey sand	○	△				⊙				
8 MJBK-29	48.0m	ilmenite-bearing clayey sand	⊙	⊙	△							
9 MJBK-29	50.0m	clayey sand	⊙	⊙		○			△			
10 MJBK-29	55.5m	shale (bed rock)	⊙	⊙		○						
11 MJBKS-1	20.0m	clayey sand	⊙	△			.	○				
12 MJBKS-1	25.0m	clayey sand	⊙	△	△	○		△				
13 MJBKS-1	28.0m	clayey sand	⊙	△			.				.	
14 MJBKS-4	31.0m	clayey sand	⊙	○			.					
15 MJBK-24	58.0m	shale (bed rock)	⊙	○	○			△	△			
16 MJBK-36	51.0m	shale (bed rock)	⊙	△		⊙		.		.		
17 MJBK-37	48.0m	shale (bed rock)	⊙	⊙	⊙	○		.		.		
18 MJBKS-8	30.5m	shale (bed rock)	⊙	○	○			○				
19 MJBKS-13	33.0m	shale (bed rock)	⊙	○	△						.	
20 MJBKS-25	34.0m	shale (bed rock)	⊙	△		△		⊙	△			

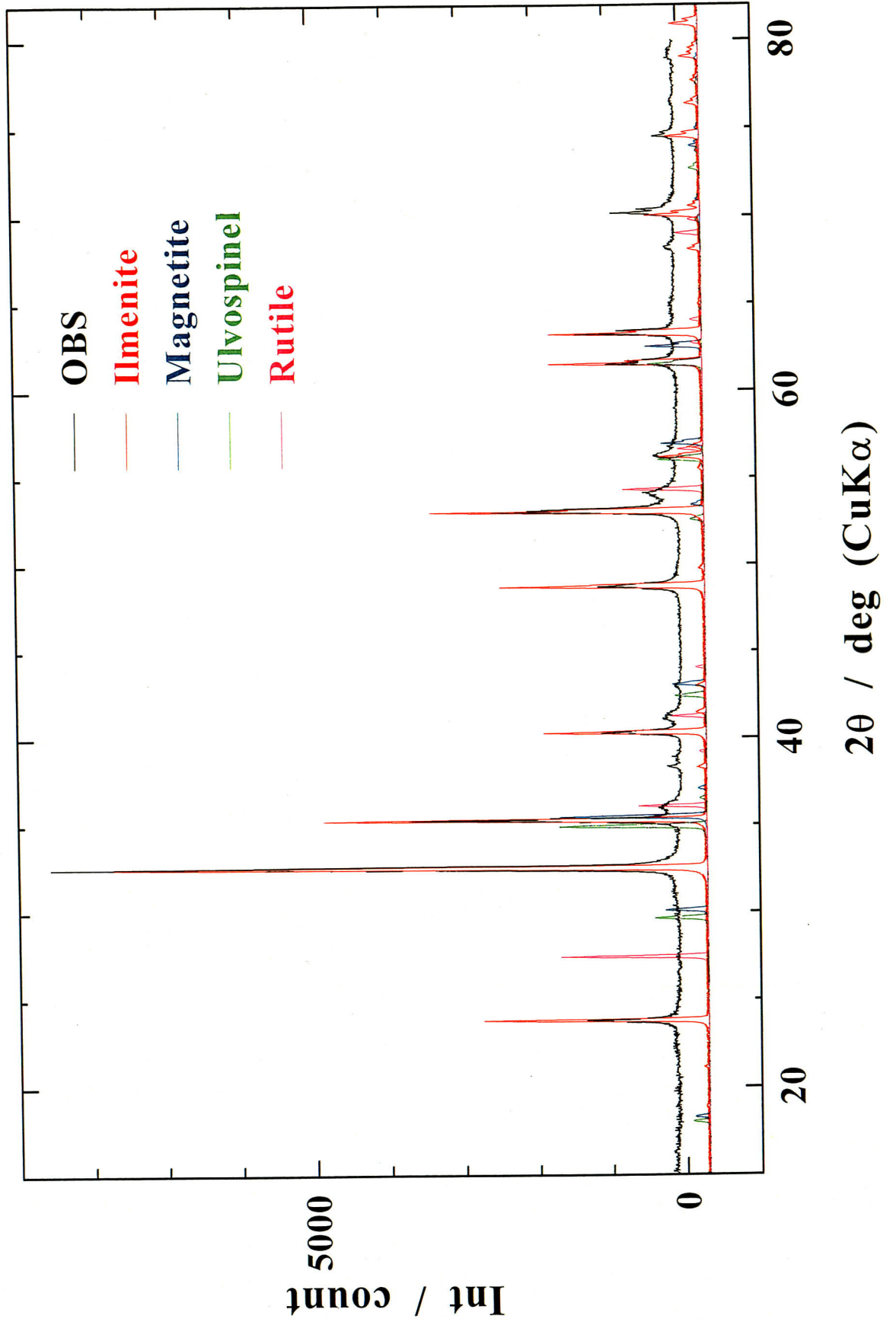
[Abundance]

⊙ : Abundant, ○ : Common, △ : Poor, . : Rare

[Abbreviations]

Qz=Quartz
 Kol=Kaolinite
 Ill=Illite
 Smc=Smectite
 Ilm=Ilmenite
 Pl=Plagioclase
 K-f=K-Feldspar
 Cpx=Clinopyroxene
 Amp=Amphibole
 Tor=Tourmaline

Appendix 2-5 X-Ray Chart of Ilmenite



Appendix 2-6 The Results of Whole Rock Analysis

Appendix 2-6 The Results of Whole Rock Analysis

	G004	G017	G031	G034	G042	G053	G066	G078	G087	G096	G103	G109	G113	G121	G124	G127	G145	G201	G209	I002	I004	I023	I063	I081	I085	I106
SAMPLE LOCATION	48° 53'24"N 82° 51'02"E	48° 54'26"N 82° 51'02"E	48° 47'03"N 82° 50'52"E	48° 47'03"N 82° 51'30"E	48° 46'27"N 82° 53'41"E	48° 46'38"N 82° 53'11"E	48° 49'10"N 82° 49'30"E	48° 50'57"N 82° 51'09"E	48° 50'14"N 82° 51'58"E	48° 49'58"N 82° 52'37"E	48° 50'02"N 82° 51'40"E	48° 51'05"N 82° 51'03"E	48° 51'46"N 82° 50'59"E	48° 52'44"N 82° 51'28"E	48° 52'06"N 82° 48'46"E	48° 52'07"N 82° 49'03"E	48° 51'50"N 82° 49'54"E	48° 52'57"N 82° 52'57"E	48° 52'41"N 82° 49'46"E	48° 51'56"N 82° 48'23"E	48° 49'53"N 82° 50'02"E	48° 44'29"N 82° 50'24"E	48° 50'45"N 82° 49'58"E	48° 50'51"N 82° 51'51"E	48° 50'48"N 82° 52'29"E	48° 52'39"N 82° 47'41"E
LITHOLOGICAL NAME	MNZGR1	MNZGR1	AGLO-MERALE	MNZGR1	QP	QTMNZ	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1
Magnetic Susceptibility*	0.46	1.69	35.5	4.67	0.1	0.2	11	0.09	3.66	3.57	2.38	6.32	0.4	4.86	1.98	0.71	0.38	0.06	1.3	3.42	59.3	5.9	0.24	14.8	19.8	27.7
SiO ₂	69.06	70.80	54.12	72.21	76.00	60.92	63.45	71.80	71.15	66.31	71.51	57.81	56.46	70.19	71.61	52.45	58.74	75.35	64.95	71.02	54.79	51.42	69.06	49.73	52.93	46.89
TiO ₂	0.33	0.24	0.84	0.15	0.067	0.69	0.53	0.15	0.23	0.43	0.24	1.83	1.75	0.30	0.29	1.28	1.14	0.073	0.49	0.22	0.9	0.73	0.25	1.93	2	1.03
Al ₂ O ₃	14.47	13.81	16.64	13.73	12.06	16.00	15.91	14.08	13.96	16.19	13.9	16.13	16.26	14.15	14.09	17.21	16.95	12.17	15.88	14.08	19.32	16.25	14.79	15.89	16.83	18.48
Fe ₂ O ₃	2.96	2.53	7.61	2.09	1.01	3.20	6.3	1.36	2.76	4.23	2.92	8.56	8.85	3.42	2.81	10.01	7.58	1.41	4.23	2.62	9.77	8.46	3.01	12.21	11.42	10.41
FeO	0.81	1.21	3.81	0.33	<0.10	2.67	3.29	0.78	1.53	2.15	1.36	5.30	5.59	1.00	1.04	6.12	5.02	0.35	1.36	0.95	6.9	4.77	0.85	6.26	4.87	6.12
MnO	0.048	0.044	0.11	0.015	0.006	0.13	0.11	0.031	0.041	0.070	0.045	0.12	0.13	0.050	0.04	0.14	0.095	0.017	0.071	0.039	0.15	0.11	0.046	0.14	0.15	0.13
MgO	0.51	0.26	5.69	0.091	0.05	0.22	0.17	0.23	0.26	0.42	0.3	2.41	4.03	0.4	0.42	5.61	2.32	0.083	0.8	0.27	4.48	6.7	0.45	3.82	3.49	8.55
CaO	1.61	1.16	9.07	0.46	0.39	2.01	1.51	1.12	0.91	1.51	0.98	5.08	6.06	1.51	1.16	7.84	4.97	0.53	1.72	1.26	4.66	10.61	1.54	7.56	7.18	9.28
Na ₂ O	3.38	3.37	3.17	3.44	3.09	5.00	3.86	2.99	2.54	3.87	3.41	3.64	3.15	3.11	3.19	2.98	3.24	2.75	4.04	3.34	3.17	2.62	3.34	3.22	3.45	2.87
K ₂ O	3.58	3.71	1.45	4.08	3.51	6.19	4.63	3.59	3.51	4.14	3.82	2.43	1.69	3.76	3.57	1.54	2.49	3.78	3.76	3.69	0.65	1.59	3.26	1.89	1.74	0.77
P ₂ O ₅	0.085	0.19	0.33	0.047	0.017	0.07	0.085	0.047	0.08	0.075	0.059	0.69	0.49	0.079	0.076	0.57	0.46	0.032	0.22	0.045	0.28	0.39	0.1	0.72	0.72	0.5
CO ₂																										
H ₂ O(+)																										
H ₂ O(-)	0.20	0.09	0.04	0.02	0.12		0.03	0.03	0.21	0.03	<0.02	0.10	0.13	<0.02	0.19	0.11	<0.02	0.09	0.18	0.04	0.61	0.20	<0.02	0.02	0.04	0.02
LOI	0.66	0.43	0.57	0.24	0.23	0.82	0.34	0.54	0.34	0.33	0.3	0.92	1.22	0.34	0.35	1.62	0.75	0.29	0.65	0.34	0.36	1.25	0.49	0.7	0.59	0.74
Total	97.70	97.84	103.45	96.90	96.60	97.92	100.22	96.75	97.52	99.76	98.85	105.02	105.81	98.32	98.84	107.48	103.77	96.93	98.35	97.91	106.04	105.10	97.20	104.09	105.41	105.79
Solidification Index	4.7	2.4	27.1	0.9	0.7	1.3	1.0	2.6	2.5	2.9	2.6	11.2	18.0	3.5	3.9	22.2	11.7	1.0	5.8	2.5	18.7	28.8	4.2	14.6	14.6	30.9
SiO ₂ /Al ₂ O ₃	8.1	8.7	5.5	8.9	10.7	6.5	6.8	8.7	8.7	7.0	8.7	6.1	5.9	8.4	8.6	5.2	5.9	10.5	6.9	8.6	4.8	5.4	7.9	5.3	5.3	4.3
CaO+Na ₂ O/K ₂ O	1.5	1.4	3.5	1.3	1.3	1.3	1.3	1.3	1.1	1.4	1.4	2.4	2.9	1.3	1.4	3.1	2.1	1.1	1.7	1.4	7.5	2.7	1.6	2.7	3.1	5.8
K ₂ O/Na ₂ O+K ₂ O	0.4	0.4	0.2	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.3	0.3	0.4	0.4	0.3	0.3	0.5	0.4	0.4	0.1	0.3	0.4	0.3	0.2	0.2
K ₂ O/Na ₂ O	0.7	0.7	0.3	0.8	0.7	0.8	0.8	0.8	0.9	0.7	0.7	0.4	0.4	0.8	0.7	0.3	0.5	0.9	0.6	0.7	0.1	0.4	0.6	0.4	0.3	0.2
FeO/Fe ₂ O ₃	0.6	1.1	1.1	0.4	0.1	1.9	1.2	1.3	1.2	1.1	1.0	1.4	1.4	0.6	0.8	1.4	1.5	0.6	0.7	0.8	1.6	1.3	0.6	1.1	0.9	1.3
Modal opaque minerals	0.4		3.7	0.4		1.0		0.7	0.3	1.0		2.1	1.1	0.7	1.8			0.0	0.4	1.0	1.6	0.7	0.6		1.0	4.5

Appendix 2-7 The Results of Minor Element Analysis

Appendix 2-7 The Results of Minor Element Analysis

SAMPLE NUMBER	G004	G017	G031	G034	G042	G053	G066	G078	G087	G096	G103	G109	G113	G121	G124	G127	G145	G201	G209	I002	I004	I023	I063	I081	I085	I106
SAMPLE LOCATION	48° 51'02"E 82° 51'02"E	48° 51'24"N 82° 51'02"E	48° 47'03"N 82° 50'27"E	48° 47'02"N 82° 51'30"E	48° 46'25"N 82° 53'41"E	48° 46'38"N 82° 53'11"E	48° 49'38"N 82° 49'38"E	48° 50'57"N 82° 51'09"E	48° 51'47"N 82° 51'58"E	48° 51'47"N 82° 51'58"E	48° 50'27"N 82° 52'37"E	48° 51'47"N 82° 51'09"E	48° 51'47"N 82° 50'59"E	48° 52'44"N 82° 51'28"E	48° 52'06"N 82° 48'46"E	48° 52'00"N 82° 49'03"E	48° 51'50"N 82° 49'34"E	48° 52'57"N 82° 52'37"E	48° 52'41"N 82° 49'46"E	48° 51'50"N 82° 48'23"E	48° 49'37"N 82° 50'02"E	48° 44'29"N 82° 59'24"E	48° 50'45"N 82° 49'58"E	48° 50'57"N 82° 51'32"E	48° 50'48"N 82° 52'29"E	48° 52'39"N 82° 47'41"E
LITHOLOGICAL NAME	MNZGR1	MNZGR1	MNZGR1	MNZGR1	QTZAMNZ1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	AGLO1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	NORITE
Magnetic Susceptibility*	0.46	1.69	35.5	4.67	0.1	0.2	11	0.09	3.66	3.57	2.38	6.32	0.4	4.86	1.98	0.71	0.38	0.06	1.3	3.42	59.3	5.9	0.24	14.8	19.8	27.7
Ag(ppm)	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ba(ppm)	503	350	508	68.5	33	3680	1260	324	272	844	261	607	299	414	412	358	567	112.5	668	295	402	1010	469	439	424	250
Ce(ppm)	78	90	51	177	8.5	27.5	39	41	111.5	69	87	79.5	59.5	74	72.5	60	68	74.5	95	89.5	55.5	91.5	61.5	67.5	68	36.5
Co(ppm)	3.5	1.5	23.5	0.5	0.5	1.5	1	1	1.5	2	1.5	13.5	22.5	2.5	2.5	30.5	13.5	<0.5	5	2	27	27.5	2.5	26.5	22	42
Cs(ppm)	5.5	3.4	1.6	1.5	1	0.6	1	10.1	3.9	2.3	2.2	3.2	2.3	6.1	6.3	2.6	7.2	3	1.5	2.3	0.4	0.4	4.2	1.7	1.3	0.3
Cu(ppm)	70	5	90	15	35	5	15	10	5	10	5	25	30	10	10	30	30	30	15	25	10	110	10	30	25	45
Dy(ppm)	5.2	6.5	3.4	8.3	3.8	2.7	5.3	2.2	8.5	6.3	7.6	7.5	6.5	5.1	5	6.9	5.2	4.4	5.9	6.5	4.5	4	3	7.7	6.8	4
Er(ppm)	3.3	4	1.9	4.9	3.7	1.7	3.8	1.2	5.9	4.1	5.1	4.6	3.8	3.6	3.3	4	3.1	3.1	3.6	4.7	2.8	1.8	1.8	4.2	4.3	2.6
Eu(ppm)	1	0.5	1.4	0.2	<0.10	2.9	1.6	0.4	0.6	1.3	0.5	2.1	1.7	0.9	0.7	2.1	1.7	0.2	1.4	0.5	1.6	1.9	0.8	2.4	2.4	1.6
Ga(ppm)	22	24	20	26	26	19	22	18	22	22	22	22	20	22	21	20	22	18	22	21	24	20	21	22	21	19
Gd(ppm)	6	7.1	4.7	10.9	1.6	3.2	6.1	3	9.4	7.2	7.8	8.7	7.1	5.6	5.8	7.8	6.4	5	7.4	6.8	5.6	6.8	3.8	9.2	8.7	4.7
Hf(ppm)	6	8	4	9	6	1	18	3	9	14	9	7	6	6	7	5	6	3	9	7	4	3	5	5	6	3
Ho(ppm)	1.1	1.4	0.6	1.5	0.9	0.5	1.1	0.4	1.8	1.3	1.5	1.5	1.2	1.1	1	1.4	1.1	0.9	1.2	1.3	0.9	0.7	0.6	1.5	1.4	0.8
La(ppm)	39	36	22.5	81	2.5	13	16.5	19.5	56	29.5	37.5	32.5	25.5	31	34.5	25	28	32.5	45	39.5	25	37.5	29.5	27	28	15
Lu(ppm)	0.5	0.6	0.2	0.6	0.7	0.3	0.6	0.1	0.7	0.6	0.7	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.6	0.4	0.2	0.2	0.5	0.5	0.3
Nb(ppm)	11	12	4	10	15	9	11	8	13	13	14	12	11	11	11	11	11	10	9	12	13	7	6	9	12	6
Nd(ppm)	32	36.5	27	75.5	3.5	15.5	24.5	17.5	51	33.5	38	41.5	32	31	31.5	34	33	31.5	41	37.5	27.5	45	24	38.5	38	22.5
Ni(ppm)	5	<5	45	<5	<5	<5	5	<5	<5	<5	<5	<5	20	<5	<5	40	10	<5	5	<5	45	55	<5	5	<5	85
Pb(ppm)	15	20	20	30	35	10	30	45	25	20	30	140	45	35	30	20	30	30	40	15	15	20	45	20	15	20
Pr(ppm)	8.8	9.2	6.4	20.1	0.8	3.5	5.5	4.5	13.5	8.2	10	9.8	7.4	7.7	8.3	7.5	8.1	8.4	10.6	9.8	6.4	10.6	6.5	8.8	8.7	4.9
Rb(ppm)	104.5	101	24.8	86.4	162.5	39.6	46.8	130	102	66.6	90.2	59	46.4	104	124	38.2	89.8	115	84	86.2	11.2	28.4	97.8	43.4	35.8	10
Sm(ppm)	6.3	7.5	5.4	12.4	1.1	3.2	5.6	3.5	9.8	7.1	8.1	8	7	5.7	6.3	7.4	6.5	5.9	7.4	7	5.4	7.6	4.1	8.7	8.2	5
Sr(ppm)	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ta(ppm)	194	98.7	1290	39.9	17.2	153.5	68.7	135	75.9	114.5	74.3	502	533	154.5	147.5	610	512	34.1	239	96.9	664	1390	186	579	542	785
Tb(ppm)	0.5	0.5	<0.5	<0.5	1.5	<0.5	<0.5	0.5	0.5	<0.5	0.5	0.5	0.5	0.5	0.5	<0.5	<0.5	<0.5	0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tm(ppm)	0.9	1.1	0.6	1.6	0.4	0.5	0.9	0.4	1.5	1.1	1.3	1.3	1.1	1	1	1.2	1	0.8	1.1	1.1	0.8	0.8	0.5	1.3	1.2	0.7
Th(ppm)	15	9	4	10	9	1	2	12	10	5	12	7	5	21	13	3	8	11	13	10	4	8	11	3	4	<1
Ti(ppm)	<0.5	<0.5	4.0	0.5	<0.5	<0.5	0.5	1.5	3.0	<0.5	0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tm(ppm)	0.4	0.6	0.2	0.6	0.6	0.2	0.5	0.1	0.8	0.6	0.7	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.6	0.4	0.2	0.2	0.5	0.6	0.3
U(ppm)	3.0	3.0	1.5	2.0	3.5	<0.5	0.5	2.5	2.0	1.5	1.5	5.0	3.0	3.0	2.5	1.0	2.5	2.0	3.0	2.5	<0.5	2.5	3.0	2.0	1.5	<0.5
V(ppm)	20	10	175	5	5	30	15	5	5	10	10	105	135	15	15	160	85	5	25	10	175	185	15	200	170	145
W(ppm)	1	<1	<1	1	1	<1	<1	1	1	1	1	1	1	1	3	1	1	<1	1	1	<1	<1	<1	3	1	<1
Y(ppm)	31	35	17	40	24.5	13	27.5	11.5	46.5	33.5	43	38.5	33.5	30	29	35.5	28	22	30.5	36.5	23	18	16	38	37.5	21
Yb(ppm)	3.1	3.7	1.5	4.3	4.6	1.5	3.7	1.1	5.1	4	4.7	3.5	3.5	3.1	3.3	3.4	2.9	2.8	3.4	4	2.3	1.4	1.5	3.7	3.3	1.9
Zn(ppm)	55	65	90	70	25	50	70	30	65	80	65	275	115	55	60	100	85	25	80	55	105	130	45	125	110	165
Zr(ppm)	261	346	170.5	323	145	141.5	1240	106.5	328	738	355	361	287	268	267	257	313	113	375	262	180	155.5	200	235	314	156

Appendix 2-8 The Results of CIPW Normative Constituent

Appendix 2-8 The Results of CIPW Normative Constituents

SAMPLE NUMBER	G004	G017	G031	G034	G042	G053	G066	G078	G087	G096	G103	G109	G113	G121	G124	G127	G145	G201	G209	I002	I004	I023	I063	I081	I085	I106
SAMPLE LOCATION	48° 53'24"N 82° 51'02"E	48° 54'26"N 82° 50'22"E	48° 54'26"N 82° 50'22"E	48° 47'02"N 82° 51'00"E	48° 46'25"N 82° 53'41"E	48° 48'38"N 82° 53'11"E	48° 49'17"N 82° 49'30"E	48° 50'57"N 82° 51'09"E	48° 50'14"N 82° 51'58"E	48° 49'58"N 82° 52'37"E	48° 50'02"N 82° 51'40"E	48° 51'35"N 82° 50'59"E	48° 51'46"N 82° 50'59"E	48° 52'06"N 82° 48'46"E	48° 52'06"N 82° 48'46"E	48° 52'00"N 82° 49'03"E	48° 51'09"N 82° 49'34"E	48° 52'57"N 82° 52'37"E	48° 52'41"N 82° 49'46"E	48° 51'56"N 82° 48'22"E	48° 49'57"N 82° 50'02"E	48° 44'59"N 82° 59'24"E	48° 50'45"N 82° 49'58"E	48° 50'55"N 82° 51'35"E	48° 50'46"N 82° 52'29"E	48° 52'09"N 82° 47'41"E
LITHOLOGICAL NAME	MNZGR1	MNZGR1	AGILO- MFEATE	MNZGR1	QP	QTZMNZ	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZGR1	MNZDR1	MNZGR1	MNZGR1	MNZGR1	MNZDR1	MNZDR1	MNZGR1	MNZGR1	MNZGR1	AGILO- MFEATE	AGILO- MFEATE	MNZGR1	MNZDR1	MNZDR1	NOBITE
qz	31.73	34.66	6.59	35.60	43.73	4.51	19.95	38.00	40.73	24.30	34.67	14.85	14.27	34.10	36.49	6.49	16.98	43.72	22.80	34.49	16.45	2.92	33.47	5.95	8.86	0.00
or	21.16	21.93	8.57	24.11	20.74	36.58	27.36	21.22	20.74	24.47	22.58	14.36	9.99	22.22	21.10	9.10	14.72	22.34	22.22	21.81	3.84	9.40	19.27	11.17	10.28	4.55
ab	28.60	28.52	26.82	29.11	26.15	42.31	32.66	25.30	21.49	32.75	28.85	30.80	26.65	26.32	26.99	25.22	27.42	23.27	34.19	28.26	26.82	22.17	28.26	27.25	29.19	24.29
an	7.43	4.51	26.89	1.98	1.82	2.93	6.94	5.25	3.99	7.00	4.48	20.50	25.24	6.98	5.26	29.04	21.65	2.42	7.10	5.96	21.29	27.89	6.99	23.32	25.30	35.27
lc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ne	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
kal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C	2.31	2.60	0.00	2.93	2.51	0.00	2.01	3.35	4.52	2.78	2.52	0.00	0.00	2.41	3.05	0.00	0.99	2.67	2.56	2.41	5.60	0.00	3.21	0.00	0.00	0.00
di	0.00	0.00	12.41	0.00	0.00	3.74	0.00	0.00	0.00	0.00	0.00	0.15	1.27	0.00	0.00	4.82	0.00	0.00	0.00	0.00	0.00	17.37	0.00	7.38	4.37	5.87
hy	1.27	0.65	8.41	0.23	0.12	0.00	0.59	0.69	0.87	1.05	0.75	5.93	9.75	1.00	1.05	12.83	7.03	0.21	1.99	0.67	14.55	9.36	1.12	6.09	6.66	9.96
wo	0.00	0.00	0.00	0.00	0.00	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ol	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ac	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
mt	1.81	3.35	10.20	0.68	0.00	4.64	9.13	1.97	4.00	5.91	3.83	12.17	12.83	2.52	2.64	14.51	10.99	0.97	3.19	2.55	14.17	12.27	2.16	15.04	10.39	15.09
il	0.63	0.46	1.60	0.28	0.12	1.31	1.01	0.28	0.44	0.82	0.46	3.48	3.32	0.57	0.55	2.43	2.17	0.14	0.93	0.42	1.71	1.39	0.47	3.67	3.80	1.96
hm	1.71	0.22	0.57	1.62	1.01	0.00	0.00	0.00	0.00	0.15	0.28	0.17	0.00	1.68	0.99	0.00	0.00	0.74	2.03	0.86	0.00	0.00	1.52	1.84	4.26	0.00
ti	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ap	0.20	0.44	0.76	0.11	0.04	0.16	0.20	0.11	0.19	0.17	0.14	1.60	1.14	0.18	0.18	1.32	1.07	0.07	0.51	0.10	0.65	0.90	0.23	1.67	1.67	1.16
cc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	96.85	97.34	102.82	96.65	96.24	97.10	99.85	96.17	96.97	99.40	98.56	104.01	104.46	97.98	98.30	105.76	103.02	96.55	97.52	97.53	105.08	103.67	96.70	103.38	104.78	105.03
mt+il+hm	4.15	4.03	12.37	2.58	1.13	5.95	10.14	2.25	4.44	6.88	4.57	15.82	16.15	4.77	4.18	16.94	13.16	1.85	6.15	3.83	15.88	13.66	4.15	20.55	18.45	17.05
Differentiation Index	84.1	87.4	40.8	91.9	94.2	85.9	80.1	87.9	85.6	82.0	87.4	57.7	48.7	84.3	86.0	38.6	57.4	92.5	81.2	86.7	44.8	33.3	83.8	42.9	46.1	27.5
(an/an+ab)×100	20.6	13.7	50.1	6.4	6.5	6.5	17.5	17.2	15.7	17.6	13.4	40.0	48.6	21.0	16.3	53.5	44.1	9.4	17.2	17.4	44.3	55.7	19.8	46.1	46.4	59.2
Modal opaque minerals	0.4		3.7	0.4		1.0		0.7	0.3	1.0		2.1	1.1		0.7	1.8		0.0	0.4	1.0	1.6	0.7	0.6		1.0	4.5

Appendix 2-9 Photomicrographs of EPMA

EPMA ANALYSIS

Ilmenite (A) from TMK Test pit

受付番号	
試料名	Ilmenite
加速電圧	15 KV
電子線電流	0.05 μ A
倍率	$\times 1000$
測定年月日	

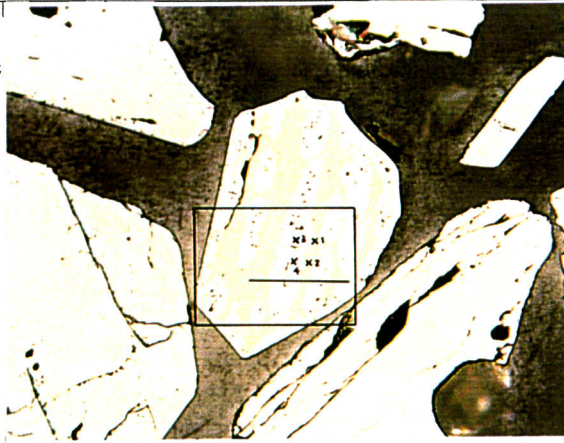
備考:

枠内EPMA分析

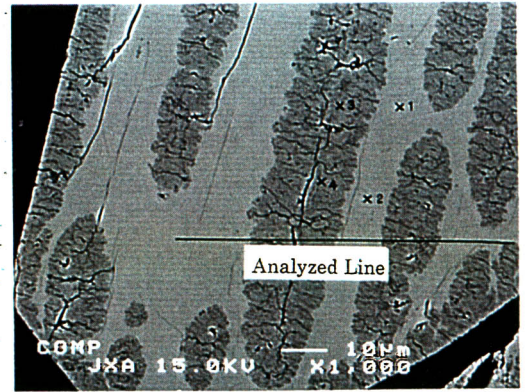
*撮影フィルム控

Polished section
Reflected light

Polished section
Reflected light
crossed nicols



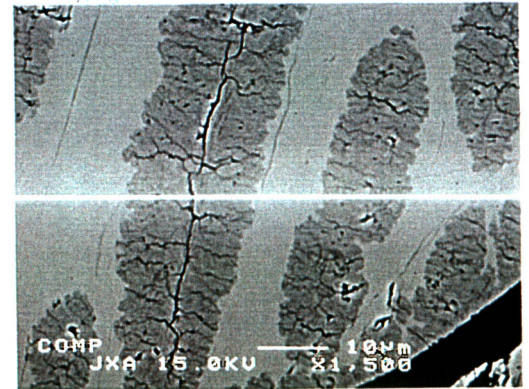
Reflected light



Analyzed Line



0 0.1mm Reflected light crossed nicols

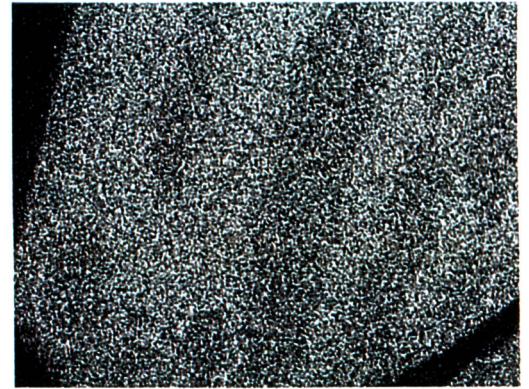
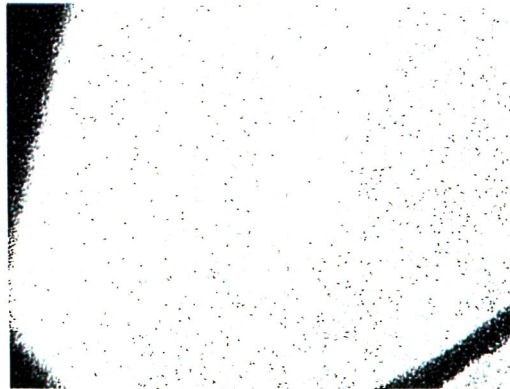


CBMP JXA 15.0KV 10 μ m $\times 1,500$



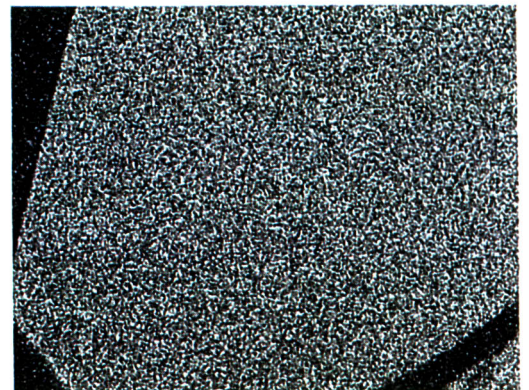
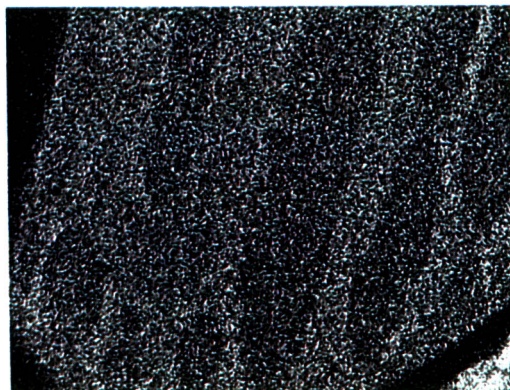
MITSUI KINZOKU
CORPORATE R & D CENTER

備考:



*撮影フィルム控

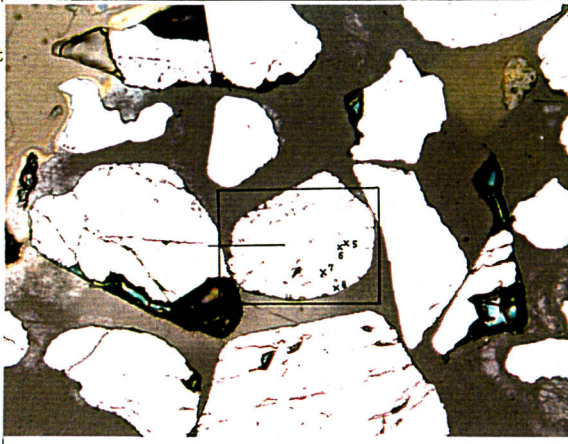
Ti	Fe
Mn	O



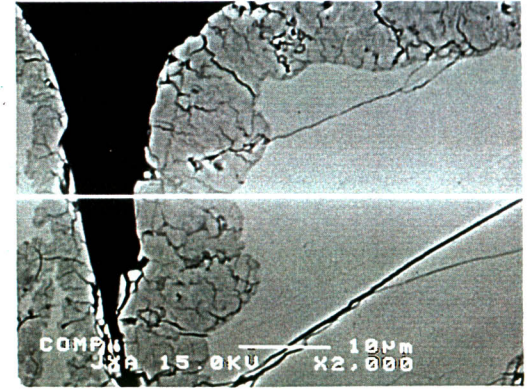
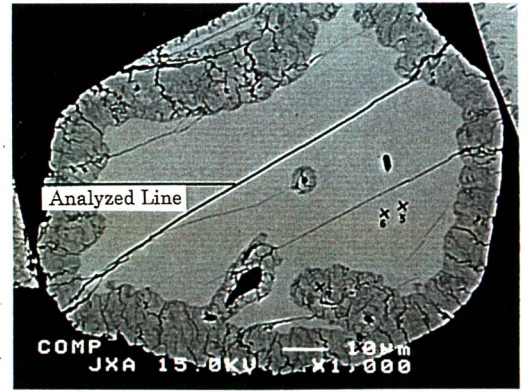
EPMA ANALYSIS

Ilmenite (B) from TMK Test pit

受付番号	
試料名	Ilmenite
加速電圧	15 KV
電子線電流	0.05 μ A
倍率	$\times 1000$
測定年月日	



Reflected light



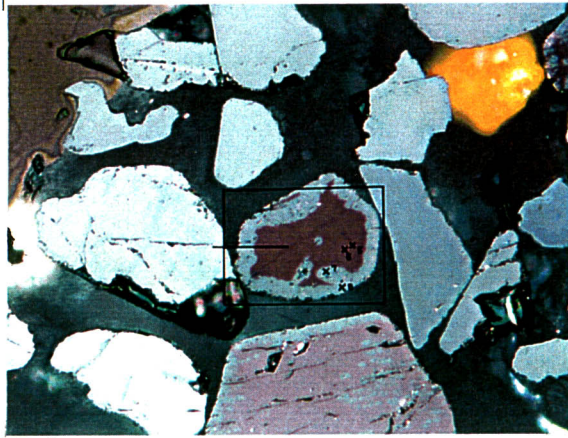
備考:

枠内EPMA分析

*撮影フィルム控

Polished section
Reflected light

Polished section
Reflected light
crossed nicols



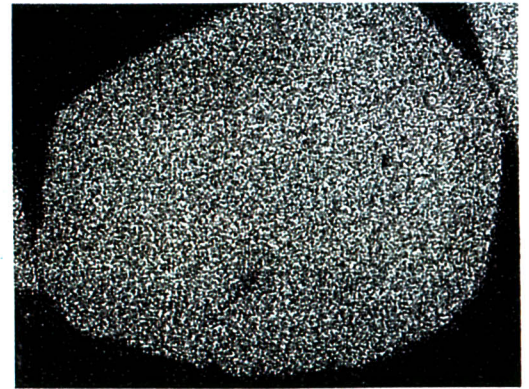
0 0.1mm

Reflected light crossed nicols



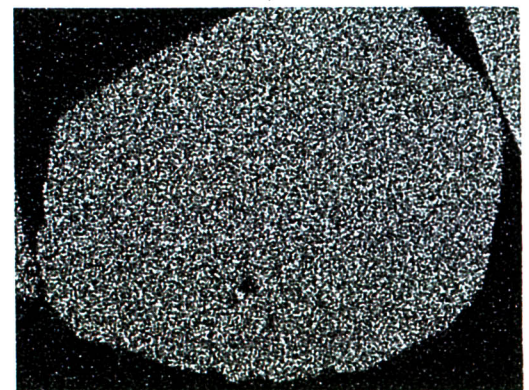
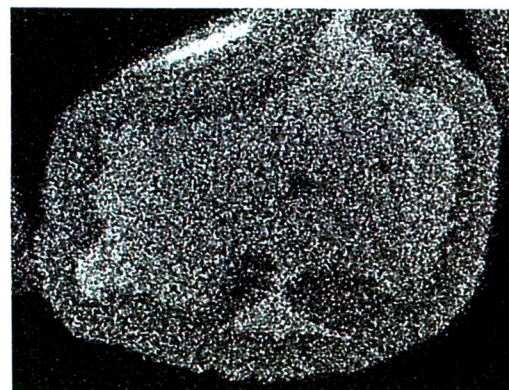
MITSUI KINZOKU
CORPORATE R & D CENTER

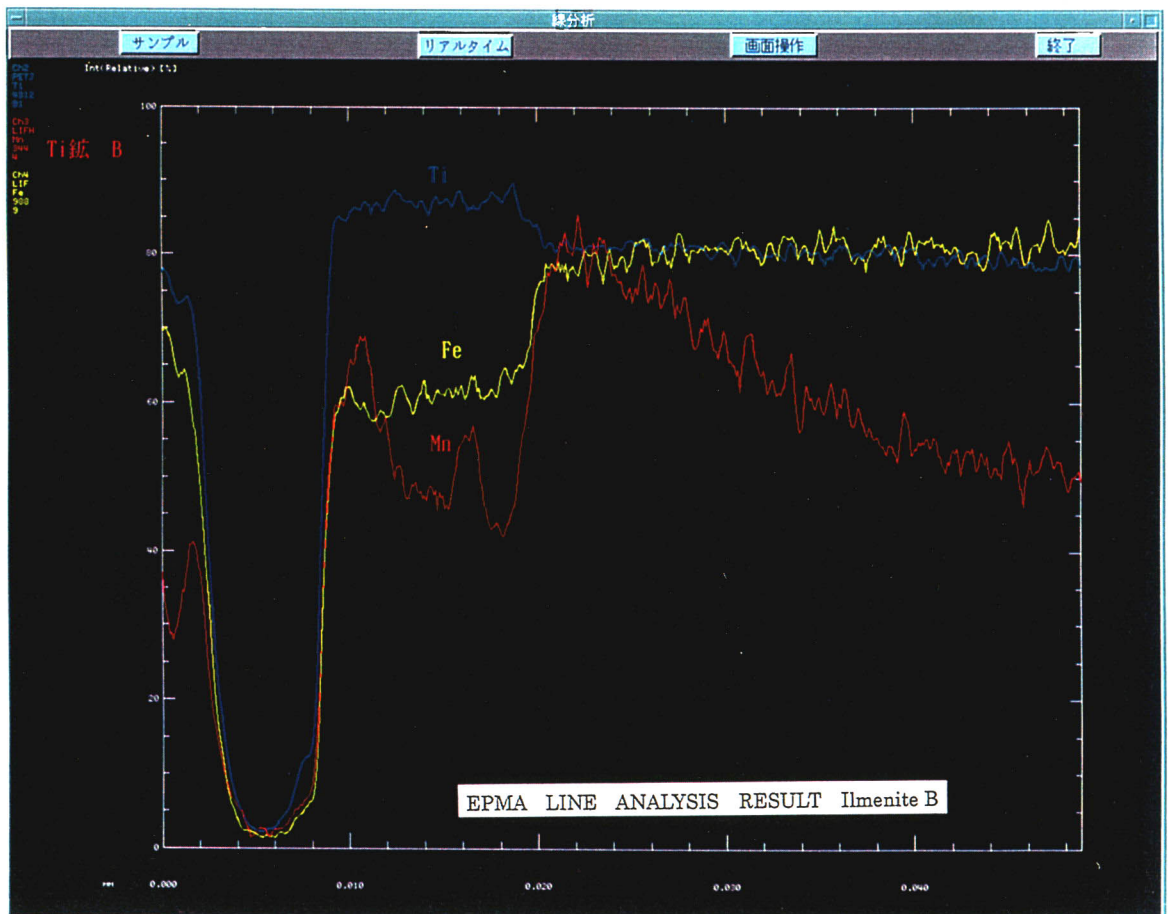
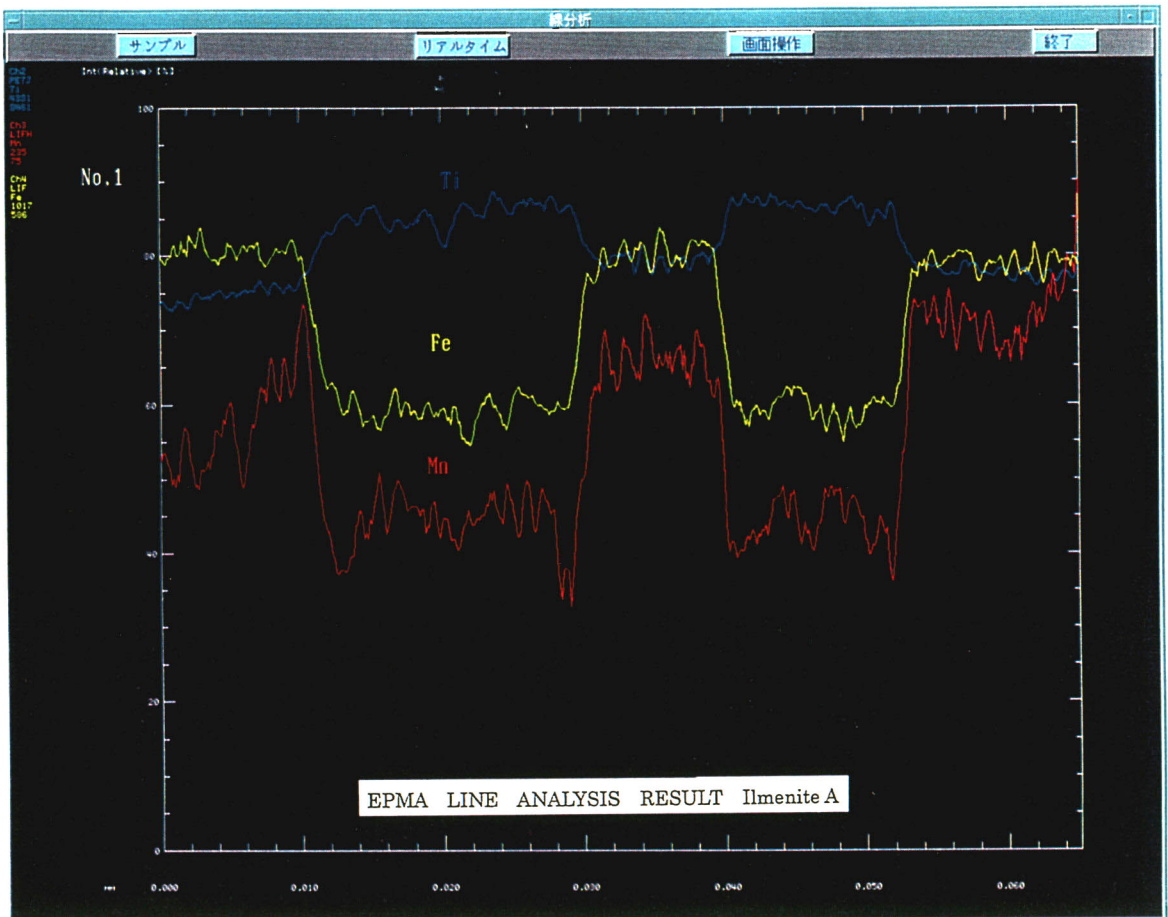
備考:



*撮影フィルム控

Ti	Fe
Mn	O





**Appendix 2-10 Quantity Mineralogical Analysis of
Usual and Check Samples**

Appendix 2-10 Quantity Mineralogical Analysis of Usual and Check Samples

No.	No. of drillholes	Sample No.	Depth (m)	Weight of dried sample (kg)	Weight of sand after siving (-1.0 mm) (g)	Weight of sample for analysis (g)	Weight of sample for separation (g)	Weight of heavy fraction (g)	Content of heavy fraction (kg/t)	Content of heavy fractions				
										Ilmenite (kg/t)	Zircon (kg/t)	Rutile (kg/t)	Leucoxene (kg/t)	the others (kg/t)
1	MJBK-18	34_12_1	23.00	8.000	45.0	45.00	45.00	10.88	1.360	0.018	tr	tr	0.030	
2	MJBK-18	34_12_2	24.00	7.900	202.0	37.80	37.80	3.15	2.129	0.054	tr	tr	0.081	
3	MJBK-18	34_12_3	25.00	7.100	2745.0	32.10	32.10	9.33	112.367	1.566	tr	tr	1.204	
4	MJBK-18	34_12_4	26.00	7.200	2395.0	37.40	37.40	10.67	94.904	1.512	tr	tr	0.712	
5	MJBK-18	34_12_5	27.00	6.200	2245.0	35.10	35.10	14.93	154.020	2.579	tr	tr	1.081	
6	MJBK-18	34_12_6	28.00	3.600	1150.0	35.90	35.90	15.40	137.017	2.135	-	tr	0.979	
7	MJBK-18	34_12_7	28.50	4.700	156.0	39.00	39.00	6.96	5.923	0.094	-	tr	0.348	
8	MJBK-18	34_12_8	29.00	3.600	165.0	41.00	41.00	4.67	5.215	0.078	-	tr	0.056	
9	MJBK-18	34_12_9	30.00	7.100	156.0	39.00	39.00	0.18	0.101	0.096	tr	-	0.005	
10	MJBK-19	34_8_1	25.40	6.700	70.0	35.00	35.00	4.89	1.460	0.033	-	tr	0.009	
11	MJBK-19	34_8_2	26.40	6.300	95.0	35.50	35.50	5.21	2.216	0.042	tr	tr	0.017	
12	MJBK-19	34_8_3	27.40	5.900	80.0	40.00	40.00	4.05	1.373	0.031	-	0.102	0.047	
13	MJBK-19	34_8_4	28.00	7.800	350.0	32.70	32.70	7.31	10.028	0.219	tr	0.412	0.137	
14	MJBK-19	34_8_5	29.00	4.000	735.0	34.30	34.30	4.00	21.430	0.375	tr	1.607	0.161	
15	MJBK-19	34_8_6	29.60	5.150	115.0	35.80	35.80	5.69	3.546	0.062	tr	0.012	0.044	
16	MJBK-19	34_8_7	30.60	8.300	75.0	37.50	37.50	3.03	0.730	0.018	tr	0.024	0.013	
17	MJBK-19	34_8_8	31.60	5.400	40.0	40.00	40.00	38.80	0.461	0.040	tr	0.022	0.018	
18	MJBK-19	34_8_9	32.60	2.900	10.0	10.00	10.00	0.63	0.217	0.014	-	0.017	0.024	
19	MJBK-19	34_8_10	33.00	7.900	55.0	41.20	41.20	1.68	0.283	0.244	tr	0.003	0.024	
20	MJBK-19	34_8_11	34.00	5.600	180.0	33.70	33.70	2.54	2.422	0.057	tr	0.006	0.051	
21	MJBK-19	34_8_12	35.00	3.800	190.0	35.50	35.50	4.35	6.124	0.183	tr	0.014	0.225	
22	MJBK-19	34_8_13	35.80	4.900	525.0	32.80	32.80	3.05	9.959	0.261	tr	0.065	0.327	
23	MJBK-19	34_8_14	36.60	2.900	435.0	40.60	40.60	5.27	19.463	0.480	tr	1.477	0.518	
24	MJBK-19	34_8_15	36.90	5.400	115.0	35.80	35.80	6.09	3.620	0.089	tr	0.006	0.047	
25	MJBK-19	34_8_16	38.00	5.300	165.0	41.20	41.20	5.15	3.887	0.090	tr	tr	0.099	
26	MJBK-19	34_8_17	39.00	5.200	115.0	35.80	35.80	5.82	3.693	0.082	tr	0.006	0.077	
27	MJBK-19	34_8_18	40.00	5.300	200.0	37.50	37.50	5.73	7.573	0.181	tr	0.010	0.141	
28	MJBK-19	34_8_19	41.00	5.900	250.0	31.20	31.20	3.54	4.806	0.095	tr	tr	0.095	
29	MJBK-19	34_8_20	42.00	5.100	275.0	34.30	34.30	5.02	7.894	0.126	tr	0.016	0.125	
30	MJBK-19	34_8_21	43.00	5.200	240.0	30.00	30.00	4.18	6.431	0.138	tr	0.016	0.123	
31	MJBK-20	30_32_1	29.00	6.600	6.7	6.70	6.70	2.11	0.320	0.007	tr	tr	0.005	
32	MJBK-20	30_32_2	30.00	6.700	308.0	38.50	38.50	4.75	5.672	0.131	tr	tr	0.072	
33	MJBK-20	30_32_3	31.00	9.200	2760.0	32.20	32.20	3.34	31.116	0.652	tr	tr	0.652	
34	MJBK-20	30_32_4	31.50	5.500	2200.0	34.40	34.40	2.97	34.533	0.407	tr	0.070	0.571	
35	MJBK-20	30_32_5	32.00	8.400	2320.0	36.20	36.20	6.73	51.348	0.916	tr	0.076	0.763	
36	MJBK-20	30_32_6	32.70	6.400	685.0	36.10	36.10	5.17	15.332	0.237	tr	tr	0.415	
37	MJBK-20	30_32_7	33.20	6.700	855.0	40.00	40.00	7.85	25.050	0.287	tr	tr	0.288	
38	MJBK-20	30_32_8	34.20	7.300	75.0	37.50	37.50	0.80	0.219	0.005	-	tr	0.017	
39	MJBK-20	30_32_9	35.00	7.000	200.0	37.50	37.50	2.20	1.675	0.023	-	tr	0.030	
40	MJBK-21	30_24_1	31.50	8.100	150.0	37.50	37.50	8.02	3.960	0.089	tr	0.005	0.054	

Appendix 2-10 Quantity Mineralogical Analysis of Usual and Check Samples

No.	No. of drillholes	Sample No.	Depth (m)	Weight of dried sample (kg)	Weight of sand after siving (-1.0 mm) (g)	Weight of sample for analysis (g)	Weight of sample for separation (g)	Weight of heavy fraction (g)	Content of heavy fraction (kg/t)	Content of heavy fractions				
										Ilmenite (kg/t)	Zircon (kg/t)	Rutile (kg/t)	Leucocoxene (kg/t)	the others (kg/t)
41	MJBK-21	30 24 2	32.50	8.800	1345.0	31.50	31.50	5.72	27.755	27.076	0.485	tr	tr	0.194
42	MJBK-21	30 24 3	33.50	9.400	1745.0	40.60	40.60	7.19	32.875	31.549	0.640	tr	tr	0.183
43	MJBK-21	30 24 4	34.50	13.200	6595.0	38.50	38.50	11.47	148.849	146.124	1.817	tr	tr	0.130
44	MJBK-21	30 24 5	35.20	11.300	280.0	35.00	35.00	3.66	2.591	2.513	0.050	tr	tr	0.028
45	MJBK-21	30 24 6	36.50	12.000	720.0	33.70	33.70	4.02	7.156	6.942	0.134	tr	tr	0.080
46	MJBK-21	30 24 7	37.50	15.300	3480.0	33.90	33.90	6.55	43.945	42.737	0.470	tr	tr	0.335
47	MJBK-21	30 24 8	38.40	6.600	1505.0	35.30	35.30	5.70	36.817	35.654	0.452	tr	tr	0.640
48	MJBK-21	30 24 9	38.90	12.400	3370.0	39.40	39.40	11.02	76.011	72.424	1.242	tr	tr	0.345
49	MJBK-21	30 24 10	39.90	16.400	8600.0	33.50	33.50	6.86	107.384	104.097	1.330	tr	tr	0.626
50	MJBK-21	30 24 11	41.20	5.200	365.0	34.20	34.20	3.77	7.736	7.489	0.072	tr	tr	0.175
51	MJBK-21	30 24 12	42.00	7.100	735.0	34.50	34.50	0.76	2.280	2.160	0.030	-	tr	0.090
52	MJBK-22	30 16 1	34.00	10.500	150.00	37.50	37.50	0.41	0.156	0.126	0.004	-	tr	0.026
53	MJBK-22	30 16 2	35.00	10.800	103.00	38.50	38.50	1.10	0.272	0.242	0.006	-	tr	0.024
54	MJBK-22	30 16 3	36.00	10.500	560.00	35.00	35.00	1.36	2.072	1.676	0.061	-	tr	0.009
55	MJBK-22	30 16 4	37.00	5.500	940.00	36.60	36.60	4.53	21.151	19.797	0.607	tr	tr	0.047
56	MJBK-22	30 16 5	37.80	10.800	4915.00	38.30	38.30	7.23	85.890	81.375	1.663	tr	tr	0.119
57	MJBK-22	30 16 6	39.00	15.100	5210.00	40.70	40.70	10.29	87.226	82.649	1.187	tr	tr	0.085
58	MJBK-22	30 16 7	40.00	6.400	3545.00	41.40	41.40	9.31	124.521	113.152	2.006	tr	tr	0.080
59	MJBK-22	30 16 8	40.50	3.000	1850.00	36.10	36.10	9.26	158.037	147.456	2.133	-	tr	8.448
60	MJBK-22	30 16 9	41.00	5.300	1900.00	37.00	37.00	12.91	125.203	118.123	2.231	tr	tr	0.194
61	MJBK-22	30 16 10	41.80	14.200	4920.00	38.40	38.40	14.47	130.434	124.575	1.713	tr	tr	0.180
62	MJBK-22	30 16 11	42.80	9.000	375.00	35.10	35.10	2.47	2.936	2.556	0.042	-	tr	0.326
63	MJBK-22	30 16 12	44.00	6.400	80.00	40.00	40.00	3.75	1.172	1.078	0.025	-	tr	0.069
64	MJBK-23	30 12 1	35.00	9.100	145.0	36.20	36.20	4.75	2.088	2.000	0.048	tr	tr	0.004
65	MJBK-23	30 12 2	36.00	10.100	120.0	30.00	30.00	5.70	2.257	2.178	0.024	-	tr	0.004
66	MJBK-23	30 12 3	37.00	11.100	2505.0	39.10	39.10	5.89	33.998	30.823	0.924	tr	tr	0.115
67	MJBK-23	30 12 4	38.10	6.900	1645.0	38.50	38.50	16.20	100.323	98.093	1.672	tr	tr	0.062
68	MJBK-23	30 12 5	39.30	9.200	1625.0	37.90	37.90	18.64	86.879	84.268	1.258	tr	tr	0.093
69	MJBK-23	30 12 6	40.00	14.600	1825.0	35.60	35.60	9.08	31.880	30.896	0.509	tr	tr	0.105
70	MJBK-23	30 12 7	41.00	7.400	315.0	39.40	39.40	16.46	17.794	17.351	0.135	-	tr	0.135
71	MJBK-24	30 8 1	34.50	8.100	100.0	37.50	37.50	2.63	0.867	0.784	0.023	tr	tr	0.060
72	MJBK-24	30 8 2	35.50	8.200	92.0	34.50	34.50	2.98	0.905	0.805	0.018	tr	tr	0.082
73	MJBK-24	30 8 3	36.50	9.800	381.0	35.70	35.70	3.22	3.506	3.288	0.120	tr	tr	0.005
74	MJBK-24	30 8 4	37.50	6.600	940.0	36.60	36.60	4.59	17.859	16.964	0.584	tr	tr	0.027
75	MJBK-24	30 8 5	38.50	4.600	225.0	35.10	35.10	6.45	8.988	8.709	0.167	tr	tr	0.112
76	MJBK-24	30 8 6	39.50	8.400	595.0	37.10	37.10	5.22	9.968	9.490	0.248	tr	tr	0.230
77	MJBK-24	30 8 7	40.80	18.700	5090.0	39.70	39.70	9.92	68.013	66.368	1.166	-	tr	0.479
78	MJBK-24	30 8 8	42.10	6.900	245.0	24.50	24.50	2.80	0.406	0.394	0.006	tr	tr	0.006
79	MJBK-24	30 8 9	43.00	7.800	80.0	40.00	40.00	1.69	0.433	0.415	0.008	tr	tr	0.010
80	MJBK-24	30 8 10	53.50	8.100	105.0	39.40	39.40	3.87	1.300	1.115	0.040	tr	tr	0.145

Appendix 2-10 Quantity Mineralogical Analysis of Usual and Check Samples

No.	No. of drillholes	Sample No.	Depth (m)	Weight of dried sample (kg)	Weight of sand after siving (-1.0 m (g)	Weight of sample for analysis (g)	Weight of sample for separation (g)	Weight of heavy fraction (g)	Content of heavy fraction (kg/t)	Content of heavy fractions				the others (kg/t)
										Ilmenite (kg/t)	Zircon (kg/t)	Rutile (kg/t)	Leucoxene (kg/t)	
81	MJBK-24	30_8_11	54.50	10.900	665.0	41.50	41.50	4.51	6.628	5.982	0.309	tr	tr	0.337
82	MJBK-24	30_8_12	55.50	7.900	1580.0	36.90	36.90	12.07	65.422	63.146	1.409	tr	0.054	0.813
83	MJBK-24	30_8_13	56.20	4.400	455.0	42.60	42.60	5.90	14.321	13.264	0.340	-	tr	0.340
84	MJBK-24	30_8_14	57.00	4.900	405.0	37.90	37.90	2.37	5.170	4.952	0.109	tr	tr	0.109
85	MJBK-25	26_34_1	33.50	6.100	19.50	19.50	19.50	1.94	0.318	0.303	0.008	-	tr	0.007
86	MJBK-25	26_34_2	34.50	5.400	7.60	7.60	7.60	0.56	0.104	0.096	0.002	-	0.001	0.005
87	MJBK-25	26_34_3	35.50	6.900	35.00	35.00	35.00	0.11	0.088	0.083	0.002	-	tr	0.003
88	MJBK-25	26_34_4	36.00	9.400	310.00	39.00	39.00	1.63	1.387	1.311	0.030	-	0.007	0.039
89	MJBK-25	26_34_5	37.00	10.500	1770.00	34.50	34.50	3.54	17.295	16.611	0.391	tr	0.024	0.269
90	MJBK-25	26_34_6	38.00	10.000	4515.00	35.00	35.00	4.03	51.987	50.181	1.032	tr	0.129	0.645
91	MJBK-25	26_34_7	39.50	5.200	135.00	34.00	34.00	1.25	0.962	0.846	0.038	-	0.004	0.074
92	MJBK-25	26_34_8	40.50	5.900	75.00	37.50	37.50	1.50	0.508	0.485	0.010	-	0.003	0.010
93	MJBK-26	26_30_1	35.00	5.100	60.00	30.00	30.00	1.13	0.443	0.372	0.012	tr	0.004	0.055
94	MJBK-26	26_30_2	36.00	4.300	180.00	33.70	33.70	3.70	4.560	3.698	0.086	-	0.012	0.764
95	MJBK-26	26_30_3	37.00	7.600	120.00	30.00	30.00	3.39	1.784	1.700	0.042	tr	0.004	0.038
96	MJBK-26	26_30_4	38.00	9.300	4390.00	34.20	34.20	4.04	55.777	53.845	1.035	tr	0.138	0.759
97	MJBK-26	26_30_5	39.00	8.900	2435.00	38.00	38.00	5.86	42.139	40.773	0.827	tr	0.072	0.467
98	MJBK-26	26_30_6	40.00	3.200	2450.00	38.20	38.20	5.86	117.383	113.778	2.304	tr	0.140	1.161
99	MJBK-26	26_30_7	40.50	10.200	2015.00	31.40	31.40	3.33	20.959	20.141	0.378	tr	0.063	0.377
100	MJBK-26	26_30_8	41.50	8.200	230.00	35.80	35.80	2.88	2.248	2.146	0.043	-	0.004	0.055
101	MJBK-26	26_30_9	42.00	8.200	565.00	35.30	35.30	2.79	5.444	5.190	0.078	-	0.010	0.166
102	MJBK-26	26_30_10	43.00	10.300	3130.00	36.60	36.60	3.18	26.397	25.235	0.540	-	0.042	0.580
103	MJBK-26	26_30_11	44.00	7.800	2680.00	41.80	41.80	4.74	38.953	37.638	0.698	tr	0.082	0.535
104	MJBK-26	26_30_12	45.00	6.400	3050.00	35.70	35.70	4.21	56.177	54.042	1.068	-	0.133	0.934
105	MJBK-26	26_30_13	46.00	8.900	4570.00	35.70	35.70	5.84	83.991	81.258	1.294	-	0.144	1.295
106	MJBK-26	26_30_14	47.00	12.100	7480.00	36.00	36.00	5.63	96.687	94.111	1.202	tr	0.103	1.271
107	MJBK-26	26_30_15	48.00	6.900	2005.00	31.30	31.30	3.90	36.174	34.690	0.649	-	tr	0.835
108	MJBK-26	26_30_16	48.70	6.200	815.00	38.10	38.10	0.13	0.449	0.293	0.017	-	tr	0.139
109	MJBK-26	26_30_17	49.50	4.700	745.00	35.00	35.00	0.16	0.725	0.612	0.023	-	tr	0.090
110	MJBK-26	26_30_18	50.00	4.600	295.00	36.80	36.80	0.53	0.922	0.887	0.017	-	tr	0.018
111	MJBK-27	26_26_1	33.00	8.900	330.00	41.20	41.20	0.19	0.171	0.144	0.005	-	0.009	0.013
112	MJBK-27	26_26_2	34.00	8.700	270.00	33.70	33.70	0.44	0.404	0.368	0.014	-	tr	0.404
113	MJBK-27	26_26_3	35.00	11.300	1545.00	36.10	36.10	1.18	4.469	4.091	0.134	-	tr	0.244
114	MJBK-27	26_26_4	36.00	8.500	1455.00	34.00	34.00	2.05	10.322	9.718	0.302	tr	0.076	0.226
115	MJBK-27	26_26_5	37.00	10.200	835.00	39.00	39.00	0.31	0.650	0.629	0.027	-	0.021	0.027
116	MJBK-27	26_26_6	38.00	12.300	2160.00	33.70	33.70	4.48	23.310	22.374	0.520	tr	0.156	0.260
117	MJBK-27	26_26_7	39.00	13.200	6180.00	36.10	36.10	4.54	58.884	56.678	1.167	tr	0.130	0.909
118	MJBK-27	26_26_8	40.00	9.600	4850.00	37.80	37.80	3.82	51.053	48.647	1.203	tr	0.267	0.936
119	MJBK-27	26_26_9	41.00	7.800	3085.00	36.10	36.10	3.62	39.681	38.036	0.658	-	0.110	0.877
120	MJBK-27	26_26_10	42.00	11.300	5625.00	32.80	32.80	3.76	57.065	54.941	1.062	tr	0.304	0.758

Appendix 2-10 Quantity Mineralogical Analysis of Usual and Check Samples

No.	No. of drillholes	Sample No.	Depth (m)	Weight of dried sample (kg)	Weight of sand after washing (-1.0 m m)	Weight of sample for analysis (g)	Weight of sample for separation (g)	Weight of heavy fraction (g)	Content of heavy fraction (kg/t)	Content of heavy fractions				
										Ilmenite (kg/t)	Zircon (kg/t)	Rutile (kg/t)	Leucoxene (kg/t)	the others (kg/t)
121	MJBK-27	26 26 11	43.00	8.900	4140.00	32.30	32.30	3.92	56.466	55.025	0.720	tr	tr	0.721
122	MJBK-27	26 26 12	44.00	5.900	2245.00	35.00	35.00	6.60	71.705	70.075	0.815	tr	0.217	0.598
123	MJBK-27	26 26 13	44.50	5.300	430.00	40.20	40.20	1.36	2.746	2.625	0.040	-	0.010	0.071
124	MJBK-27	26 26 14	45.00	7.900	760.00	35.50	35.50	2.87	7.774	7.368	0.135	tr	0.027	0.244
125	MJBK-27	26 26 15	46.00	8.800	3190.00	37.30	37.30	2.48	24.095	22.832	0.486	tr	0.097	0.680
126	MJBK-27	26 26 16	47.00	9.000	5810.00	33.90	33.90	5.99	114.076	110.458	1.714	tr	0.286	1.618
127	MJBK-27	26 26 17	48.00	4.200	645.00	40.30	40.30	0.51	1.943	1.524	0.076	-	0.019	0.324
128	MJBK-27	26 26 18	49.00	5.600	835.00	39.00	39.00	0.37	1.414	1.223	0.038	-	0.019	0.134
129	MJBK-28	26 22 1	41.50	8.900	845.00	39.60	39.60	1.61	3.793	3.581	0.071	-	0.024	0.117
130	MJBK-28	26 22 2	42.50	10.600	145.00	36.20	36.20	4.15	1.566	1.509	0.023	tr	tr	0.034
131	MJBK-28	26 22 3	43.50	6.100	2705.00	31.70	31.70	5.19	72.643	70.124	1.120	tr	tr	1.399
132	MJBK-28	26 22 4	44.20	11.500	6200.00	36.30	36.30	6.71	99.658	95.797	1.634	tr	0.149	2.078
133	MJBK-28	26 22 5	45.00	7.200	2840.00	33.10	33.10	3.83	45.641	43.138	0.953	tr	0.358	1.192
134	MJBK-28	26 22 6	46.00	7.600	3600.00	35.10	35.10	4.49	60.591	57.353	1.147	tr	0.405	1.686
135	MJBK-28	26 22 7	47.00	9.200	5390.00	31.50	31.50	4.04	75.135	72.532	1.302	-	0.372	0.929
136	MJBK-28	26 22 8	48.50	4.300	1730.00	40.50	40.50	7.94	78.883	76.300	1.341	tr	0.199	1.043
137	MJBK-28	26 22 9	48.50	5.100	345.00	32.20	32.20	0.11	0.231	0.168	0.031	-	tr	0.032
138	MJBK-28	26 22 10	49.50	6.600	38.30	38.30	38.30	4.29	0.650	0.632	0.008	-	0.003	0.007
139	MJBK-29	26 18 1	41.00	3.100	155.00	38.80	38.80	7.39	3.365	3.256	0.055	tr	0.004	0.050
140	MJBK-29	26 18 2	41.50	8.500	115.00	36.00	36.00	3.63	1.362	1.295	0.022	tr	0.019	0.026
141	MJBK-29	26 18 3	42.50	5.700	1117.00	34.90	34.90	5.77	32.393	30.877	0.730	tr	0.168	0.618
142	MJBK-29	26 18 4	43.00	3.600	2140.00	33.40	33.40	9.09	161.777	156.794	2.670	tr	0.356	1.957
143	MJBK-29	26 18 5	43.50	4.600	2840.00	33.20	33.20	6.85	127.380	124.590	1.860	tr	0.558	0.372
144	MJBK-29	26 18 6	44.00	6.600	385.00	36.00	36.00	6.67	14.957	14.464	0.292	tr	0.022	0.179
145	MJBK-29	26 18 7	45.20	9.000	505.00	31.60	31.60	7.98	14.187	13.724	0.267	tr	0.009	0.187
146	MJBK-29	26 18 8	46.50	6.100	1735.00	40.60	40.60	10.17	71.240	68.928	1.260	tr	0.070	0.982
147	MJBK-29	26 18 9	47.20	6.700	2990.00	34.90	34.90	7.44	132.809	128.525	2.320	tr	0.178	1.786
148	MJBK-29	26 18 10	48.00	6.000	95.00	35.50	35.50	2.99	1.306	1.244	0.026	tr	0.009	0.027
149	MJBK-29	26 18 11	49.00	6.600	205.00	38.40	39.00	2.06	1.629	1.542	0.028	tr	0.008	0.051
150	MJBK-30	26 14 1	38.50	8.300	176.0	33.00	32.40	6.16	4.030	3.899	0.059	tr	0.013	0.059
151	MJBK-30	26 14 2	39.50	12.900	170.0	31.80	31.80	5.60	2.322	2.264	0.033	tr	0.006	0.019
152	MJBK-30	26 14 3	40.50	6.900	2245.0	35.00	35.00	9.64	89.610	87.280	1.487	tr	0.297	0.564
153	MJBK-30	26 14 4	41.00	7.000	2770.0	32.40	32.40	15.57	190.154	185.025	2.442	tr	0.366	2.321
154	MJBK-30	26 14 5	41.60	12.900	4230.0	33.00	33.00	10.59	105.227	102.842	1.490	tr	0.298	0.597
155	MJBK-30	26 14 6	43.00	10.400	3585.0	35.00	35.00	7.33	72.193	70.224	0.886	tr	0.197	0.886
156	MJBK-30	26 14 7	43.50	6.500	170.0	31.80	32.50	1.87	1.505	1.424	0.024	-	0.008	0.049
157	MJBK-30	26 14 8	44.50	7.400	210.0	39.30	41.00	1.01	0.699	0.671	0.010	-	0.003	0.015
158	MJBK-31	22 30 1	37.00	8.200	75.00	37.50	37.50	0.62	0.151	0.141	0.003	-	tr	0.007
159	MJBK-31	22 30 2	38.00	8.400	60.00	30.00	30.00	0.10	0.238	0.214	0.001	-	tr	0.023
160	MJBK-31	22 30 3	39.00	5.800	185.00	34.60	34.60	1.38	1.285	1.210	0.030	-	tr	0.045

Appendix 2-10 Quantity Mineralogical Analysis of Usual and Check Samples

No.	No. of drillholes	Sample No.	Depth (m)	Weight of dried sample (kg)	Weight of sand after siving (-1.0 mm) (g)	Weight of sample for analysis (g)	Weight of sample for separation (g)	Weight of heavy fraction (g)	Content of heavy fractions					
									Ilmenite (kg/t)	Zircon (kg/t)	Rutile (kg/t)	Leucosene (kg/t)	the others (kg/t)	
161	MJBK-31	22_30_5	40.00	10.400	1135.00	35.40	35.40	4.90	15.077	14.400	0.338	tr	0.062	0.277
162	MJBK-31	22_30_6	41.00	6.100	1180.00	36.80	36.80	3.16	16.836	16.037	0.453	tr	0.053	0.293
163	MJBK-31	22_30_7	41.50	6.900	1475.00	34.50	34.50	3.39	21.028	20.097	0.558	tr	0.124	0.249
164	MJBK-31	22_30_8	42.00	8.600	665.00	41.50	41.50	2.99	5.563	5.284	0.112	tr	tr	0.167
165	MJBK-31	22_30_9	43.00	10.400	3750.00	36.50	36.50	4.75	46.906	45.425	0.691	tr	0.099	0.691
166	MJBK-31	22_30_10	44.30	10.100	2260.00	35.30	35.30	2.88	18.249	17.428	0.317	-	0.063	0.441
167	MJBK-31	22_30_11	45.00	8.300	750.00	35.10	35.10	1.75	4.512	4.203	0.129	-	0.026	0.154
168	MJBK-31	22_30_12	46.00	7.300	3755.00	36.60	36.60	5.39	75.755	73.085	1.546	tr	0.211	0.913
169	MJBK-31	22_30_13	47.00	4.400	1855.00	36.10	36.10	5.06	58.409	56.657	0.818	-	0.175	0.759
170	MJBK-31	22_30_13a	47.50	6.000	1950.00	30.40	30.40	10.76	114.953	112.709	1.181	-	tr	1.063
171	MJBK-31	22_30_14	48.00	7.000	2875.00	33.60	33.60	4.56	55.762	52.950	0.917	-	0.183	1.712
172	MJBK-31	22_30_15	49.00	5.800	2970.00	34.80	34.80	6.30	92.653	90.447	1.250	tr	0.147	0.809
173	MJBK-31	22_30_16	49.50	5.500	1370.00	32.10	32.10	0.48	3.726	3.416	0.076	-	tr	0.234
174	MJBK-31	22_30_17	50.00	3.000	765.00	35.80	35.80	0.21	1.498	1.355	0.036	-	tr	0.107
175	MJBK-31	22_30_4	40.00	6.000	985.00	30.70	30.70	2.61	13.920	13.173	0.373	tr	0.053	0.321
176	MJBK-32	22_26_1	34.00	4.800	32.80	32.80	32.80	0.45	0.094	0.090	0.001	-	tr	0.003
177	MJBK-32	22_26_2	35.00	6.400	50.00	50.00	50.00	0.14	0.022	0.019	0.001	-	0.001	0.001
178	MJBK-32	22_26_3	36.20	6.200	40.00	40.00	40.00	1.76	0.284	0.261	0.007	tr	0.003	0.013
179	MJBK-32	22_26_4	37.00	7.000	90.00	33.70	34.20	0.92	0.346	0.327	0.006	-	tr	0.013
180	MJBK-32	22_26_5	38.00	5.200	140.00	35.00	35.00	0.15	0.115	0.092	0.004	-	0.008	0.011
181	MJBK-32	22_26_6	39.00	6.400	145.00	36.20	36.20	0.77	0.481	0.450	0.009	tr	0.006	0.016
182	MJBK-32	22_26_7	40.00	7.700	245.00	30.60	30.60	0.72	0.748	0.644	0.031	tr	0.010	0.063
183	MJBK-32	22_26_8	41.00	8.500	410.00	38.40	38.40	1.41	1.772	1.621	0.044	tr	0.025	0.082
184	MJBK-32	22_26_9	42.00	6.600	430.00	40.20	40.20	2.54	4.118	3.891	0.097	tr	0.016	0.114
185	MJBK-32	22_26_10	43.00	6.900	665.00	41.50	41.50	1.26	2.922	2.667	0.092	tr	0.035	0.128
186	MJBK-32	22_26_11	44.00	6.700	80.00	40.00	40.00	1.08	0.322	0.284	0.012	tr	0.003	0.023
187	MJBK-32	22_26_12	45.00	9.000	55.00	41.20	41.20	3.14	0.464	0.443	0.010	tr	tr	0.011
188	MJBK-32	22_26_13	46.00	7.400	190.00	35.50	35.50	2.39	1.728	1.634	0.040	tr	tr	0.054
189	MJBK-32	22_26_14	47.00	4.800	1185.00	37.00	37.00	4.51	30.067	28.800	0.666	tr	0.067	0.534
190	MJBK-32	22_26_15	47.50	8.000	2080.00	32.50	32.50	4.08	32.640	31.440	0.680	tr	0.040	0.480
191	MJBK-32	22_26_16	48.00	7.400	1395.00	32.50	32.50	2.98	17.316	16.619	0.319	tr	0.029	0.349
192	MJBK-32	22_26_17	49.00	8.900	2210.00	34.50	34.50	4.63	33.294	31.856	0.575	tr	0.072	0.791
193	MJBK-32	22_26_18	50.00	7.000	2115.00	33.00	33.00	3.44	31.451	30.171	0.640	tr	0.091	0.549
194	MJBK-32	22_26_19	51.00	4.700	2055.00	32.10	32.10	4.31	58.689	55.830	0.885	tr	tr	1.974
195	MJBK-32	22_26_20	51.50	3.600	1035.00	32.30	33.20	2.04	17.663	16.970	0.260	-	tr	0.433
196	MJBK-32	22_26_21	52.00	8.700	3530.00	41.00	41.00	3.71	36.634	35.290	0.593	tr	0.198	0.533
197	MJBK-32	22_26_22	53.00	9.100	5385.00	31.50	31.50	4.76	89.420	86.038	1.315	-	0.564	1.503
198	MJBK-32	22_26_23	54.00	7.300	2755.00	32.20	32.20	3.37	39.498	37.623	0.703	tr	0.117	1.055
199	MJBK-32	22_26_24	55.00	6.400	2245.00	35.00	35.00	2.94	29.464	27.660	0.351	tr	tr	1.453
200	MJBK-32	22_26_25	56.00	7.900	4185.00	32.60	32.60	3.88	63.048	59.310	0.894	tr	0.975	1.869

Appendix 2-10 Quantity Mineralogical Analysis of Usual and Check Samples

No.	No. of drillholes	Sample No.	Depth (m)	Weight of dried sample (kg)	Weight of sand after sieving (-1.0 mm) (g)	Weight of sample for analysis (g)	Weight of sample for separation (g)	Weight of heavy fraction (g)	Content of heavy fraction (kg/l)	Content of heavy fractions				
										Ilmenite (kg/l)	Zircon (kg/l)	Rutile (kg/l)	Leucosene (kg/l)	the others (kg/l)
201	MJBK-32	22 26 26	57.50	5.000	2095.00	32.70	32.70	5.32	68.168	64.579	1.153	tr	1.459	0.977
202	MJBK-32	22 26 27	58.00	6.800	325.00	40.60	40.60	2.40	2.824	2.588	0.071	tr	0.012	0.153
203	MJBK-32	22 26 28	59.00	5.700	570.00	35.60	35.60	0.29	0.814	0.674	0.028	-	0.056	0.056
204	MJBK-33	22 22 1	35.00	6.400	22.60	22.60	22.60	1.30	0.203	0.186	0.003	tr	0.002	0.012
205	MJBK-33	22 22 2	36.00	6.500	155.00	38.70	39.90	0.88	0.525	0.478	0.018	tr	0.006	0.023
206	MJBK-33	22 22 3	37.00	8.000	270.00	33.80	33.80	2.29	2.290	2.180	0.060	tr	0.050	0.045
207	MJBK-33	22 22 4	38.00	10.100	1960.00	30.60	30.60	1.33	8.428	7.857	0.253	tr	tr	0.318
208	MJBK-33	22 22 5	39.00	8.600	1325.00	31.00	31.00	6.76	33.596	32.403	0.402	tr	0.298	0.493
209	MJBK-33	22 22 6	40.00	10.100	1925.00	30.10	30.10	2.77	17.552	16.602	0.317	tr	0.127	0.506
210	MJBK-33	22 22 7	41.00	9.600	3910.00	30.50	30.50	4.43	59.159	57.423	0.801	tr	tr	0.935
211	MJBK-33	22 22 8	42.00	9.000	4085.00	31.90	31.90	6.79	96.569	93.867	1.564	tr	tr	1.138
212	MJBK-33	22 22 9	43.00	11.000	8215.00	32.00	32.00	6.97	162.254	158.687	2.334	tr	0.233	1.400
213	MJBK-33	22 22 10	44.00	11.300	3595.00	35.00	35.00	3.51	31.901	30.537	0.636	tr	0.364	0.364
214	MJBK-33	22 22 11	45.00	13.400	6765.00	39.60	39.60	6.95	88.586	85.910	1.402	tr	0.255	1.019
215	MJBK-33	22 22 12	46.00	9.300	4035.00	31.50	31.50	1.78	24.499	23.122	0.619	tr	0.275	0.483
216	MJBK-33	22 22 13	47.00	9.100	4385.00	34.20	34.20	6.00	84.541	81.723	0.286	tr	0.282	1.268
217	MJBK-33	22 22 14	48.00	9.100	4015.00	31.30	31.30	4.12	65.244	63.026	1.108	tr	0.158	0.952
218	MJBK-33	22 22 15	49.00	8.100	3130.00	36.60	36.60	2.09	22.066	21.116	0.370	tr	0.158	0.422
219	MJBK-33	22 22 16	50.00	10.200	4015.00	31.30	31.30	8.97	128.448	123.205	1.692	tr	0.423	1.128
220	MJBK-33	22 22 17	51.00	6.500	115.00	36.00	36.00	6.72	3.298	3.180	0.049	tr	0.010	0.059
221	MJBK-33	22 22 18	52.00	6.400	110.00	34.40	34.40	3.93	1.965	1.915	0.025	tr	tr	0.025
222	MJBK-34	22 18 1	39.00	6.400	695.0	32.60	32.60	1.16	3.864	3.698	0.050	tr	0.033	0.083
223	MJBK-34	22 18 2	40.00	8.900	239.0	37.30	37.30	3.23	2.326	2.240	0.050	tr	0.007	0.029
224	MJBK-34	22 18 3	41.00	9.300	633.0	39.50	39.50	6.15	10.581	10.185	0.258	tr	0.017	0.121
225	MJBK-34	22 18 4	42.00	10.700	4355.0	34.00	34.00	6.35	75.963	73.450	1.435	tr	0.239	0.839
226	MJBK-34	22 18 5	43.00	9.600	5910.0	35.00	35.00	6.41	112.749	107.648	1.319	tr	1.759	2.023
227	MJBK-34	22 18 6	44.00	8.400	4165.0	32.50	32.50	6.56	100.087	94.594	1.068	tr	1.831	2.594
228	MJBK-34	22 18 7	45.00	4.000	1270.0	39.70	39.70	9.96	79.680	77.600	1.120	tr	0.160	0.800
229	MJBK-34	22 18 8	45.40	4.500	41.3	41.30	41.30	7.65	1.700	1.633	0.027	tr	0.009	0.031
230	MJBK-34	22 18 9	46.00	7.800	120.0	30.00	30.00	5.83	2.990	2.820	0.067	-	0.010	0.093
231	MJBK-35	22 14 1	38.50	6.700	55.8	30.00	30.00	3.20	0.888	0.844	0.194	-	0.002	0.152
232	MJBK-35	22 14 2	39.50	7.400	95.0	35.60	36.60	5.26	1.848	1.785	0.032	-	0.027	0.027
233	MJBK-35	22 14 3	40.50	6.800	730.0	34.20	34.20	8.71	27.347	26.436	0.502	tr	0.038	0.371
234	MJBK-35	22 14 4	41.00	13.000	1465.0	34.40	34.30	12.01	39.457	38.439	0.558	tr	0.066	0.394
235	MJBK-35	22 14 5	42.00	12.900	620.0	38.50	38.50	5.27	6.577	6.290	0.175	tr	0.012	0.100
236	MJBK-35	22 14 6	43.00	6.200	1562.0	36.60	36.60	6.83	47.017	45.434	1.032	tr	0.138	0.413
237	MJBK-35	22 14 7	43.50	4.100	990.0	30.90	30.90	9.64	75.333	73.614	1.563	tr	0.195	0.039
238	MJBK-35	22 14 8	43.80	9.200	2930.0	34.30	34.30	17.39	61.462	56.913	2.414	tr	0.278	1.857
239	MJBK-35	22 14 9	44.80	9.300	1865.0	36.40	36.40	6.08	33.499	32.176	0.716	-	0.055	0.552
240	MJBK-35	22 14 10	45.80	7.500	400.0	37.50	38.30	1.64	2.283	2.144	0.056	tr	tr	0.083

Appendix 2-10 Quantity Mineralogical Analysis of Usual and Check Samples

No.	No. of drillholes	Sample No.	Depth (m)	Weight of dried sample (kg)	Weight of sand after sieving (-1.0 mm) (g)	Weight of sample for analysis (g)	Weight of sample for separation (g)	Weight of heavy fraction (g)	Content of heavy fraction (kg/t)	Content of heavy fractions				the others (kg/t)
										Ilmenite (kg/t)	Zircon (kg/t)	Rutile (kg/t)	Leucoxene (kg/t)	
241	MJBK-35	22_14_11	46.40	7.600	220.0	34.40	34.40	4.19	3.523	0.059	tr	0.008	0.126	
242	MJBK-36	18_22_1	35.00	4.000	45.5	45.50	45.50	7.55	1.888	0.032	-	0.002	0.022	
243	MJBK-36	18_22_2	36.00	3.900	48.8	48.80	48.80	4.16	1.067	0.023	tr	0.001	0.022	
244	MJBK-36	18_22_3	37.00	3.900	30.0	30.00	30.00	2.31	0.592	0.013	tr	tr	0.012	
245	MJBK-36	18_22_4	38.00	3.500	153.0	15.30	15.30	3.12	0.981	0.017	tr	tr	0.017	
246	MJBK-36	18_22_5	39.00	3.300	1.8	1.80	1.80	0.28	0.085	0.073	-	0.090	0.080	
247	MJBK-36	18_22_6	40.00	3.300	255.0	31.80	31.80	3.38	8.210	0.122	tr	0.049	0.068	
248	MJBK-36	18_22_7	41.00	2.500	1820.0	35.50	35.50	5.53	113.409	1.230	tr	0.410	1.026	
249	MJBK-36	18_22_8	41.70	4.400	1255.0	39.20	39.20	6.04	43.954	0.728	tr	0.073	0.581	
250	MJBK-36	18_22_9	42.70	3.900	955.0	30.00	30.00	3.10	25.301	0.571	tr	0.041	0.449	
251	MJBK-36	18_22_10	43.60	4.000	2085.0	32.60	32.60	4.43	70.836	1.279	tr	tr	0.800	
252	MJBK-36	18_22_11	44.50	3.200	500.0	31.20	31.20	5.73	28.687	0.451	-	0.050	0.441	
253	MJBK-36	18_22_12	45.40	4.300	885.0	41.10	39.50	3.76	21.345	0.454	tr	0.057	0.965	
254	MJBK-36	18_22_13	46.30	5.100	2100.0	32.80	32.80	4.45	55.861	0.879	-	0.126	1.883	
255	MJBK-36	18_22_14	47.30	3.500	1565.0	36.60	36.60	6.49	79.289	1.100	-	0.122	1.099	
256	MJBK-36	18_22_15	48.00	3.800	1640.0	38.40	38.40	7.14	80.250	0.899	-	tr	1.237	
257	MJBK-36	18_22_16	49.00	5.200	2119.0	33.10	31.00	8.77	115.275	1.183	-	tr	1.446	
258	MJBK-36	18_22_17	50.30	2.900	80.0	40.00	40.00	5.11	3.524	0.055	-	tr	0.145	
259	MJBK-37	14_22_1	28.00	5.700	95.0	35.50	35.50	0.29	0.136	0.005	tr	0.024	0.041	
260	MJBK-37	14_22_2	29.20	4.500	112.0	35.00	35.40	0.33	0.232	0.092	-	0.028	0.098	
261	MJBK-37	14_22_3	30.30	3.150	70.0	35.00	35.00	0.27	0.128	0.086	tr	0.014	0.023	
262	MJBK-37	14_22_4	31.50	4.200	245.0	30.60	30.60	1.16	2.062	0.222	tr	tr	1.422	
263	MJBK-37	14_22_5	32.50	4.300	125.0	31.20	31.20	0.57	0.530	0.446	tr	tr	0.075	
264	MJBK-37	14_22_6	33.50	4.200	70.0	35.00	35.00	0.43	0.205	0.100	tr	tr	0.098	
265	MJBK-37	14_22_7	34.50	4.300	120.0	30.00	30.00	0.41	0.381	0.353	tr	tr	0.019	
266	MJBK-37	14_22_8	35.50	3.000	210.0	39.30	39.30	0.63	1.121	1.015	tr	tr	0.070	
267	MJBK-37	14_22_9	36.50	3.700	195.0	36.40	36.40	0.60	0.869	0.695	-	0.014	0.117	
268	MJBK-37	14_22_10	37.50	3.900	115.0	35.90	35.90	0.29	0.238	0.074	tr	tr	0.164	
269	MJBK-37	14_22_11	38.50	4.900	300.0	37.50	37.50	0.30	0.490	0.114	tr	tr	0.376	
270	MJBK-37	14_22_12	39.80	4.400	155.0	38.80	38.80	0.16	0.145	0.045	tr	tr	0.100	
271	MJBK-37	14_22_13	40.90	4.300	515.0	32.10	32.10	0.04	0.183	0.037	tr	tr	0.146	
272	MJBK-37	14_22_14	42.00	3.500	145.0	36.30	36.30	0.06	0.068	0.034	0.006	tr	0.028	
273	MJBK-37	14_22_15	43.00	3.600	190.0	35.60	35.60	0.04	0.059	0.052	-	tr	0.001	
274	MJBK-37	14_22_16	44.00	3.200	100.0	37.50	37.50	0.09	0.075	0.038	-	0.008	0.025	
275	MJBK-37	14_22_17	45.00	3.900	148.0	37.00	37.00	0.08	0.082	0.081	tr	tr	0.001	
276	MJBKS-1	2r_32_1	17.00	4.600	45.50	45.50	42.50	2.34	0.509	0.489	tr	0.002	0.012	
277	MJBKS-1	2r_32_2	18.00	3.700	25.80	25.80	25.80	1.95	0.527	0.500	tr	0.003	0.015	
278	MJBKS-1	2r_32_3	19.00	4.600	100.00	37.50	37.50	1.05	0.609	0.563	tr	0.006	0.017	
279	MJBKS-1	2r_32_4	20.00	3.300	139.00	34.80	34.80	2.96	3.588	3.345	tr	0.024	0.098	
280	MJBKS-1	2r_32_5	21.00	3.800	78.00	39.00	39.00	3.34	1.758	1.653	tr	0.005	0.053	

Appendix 2-10 Quantity Mineralogical Analysis of Usual and Check Samples

No.	No. of drillholes	Sample No.	Depth (m)		Weight of dried sample (kg)	Weight of sand after sieving (-1.0 mm) (g)	Weight of sample for analysis (g)	Weight of sample for separation (g)	Weight of heavy fraction (g)	Content of heavy fraction (kg/l)	Content of heavy fractions				the others (kg/l)
											Ilmenite (kg/l)	Zircon (kg/l)	Rutile (kg/l)	Leucoxene (kg/l)	
281	MJBKS-1	2r_32_6	22.00	23.00	3.600	60.00	30.00	30.00	5.55	3.083	2.933	0.067	tr	0.011	0.072
282	MJBKS-1	2r_32_7	23.00	24.00	3.800	165.00	41.20	41.20	2.58	2.716	2.526	0.095	tr	0.020	0.075
283	MJBKS-1	2r_48_1	23.80	24.80	4.000	50.00	37.50	37.00	0.87	0.289	0.266	0.012	tr	0.002	0.009
284	MJBKS-1	2r_32_8	24.00	25.00	3.800	53.00	39.80	39.80	2.33	0.816	0.752	0.028	tr	0.004	0.032
285	MJBKS-1	2r_48_2	24.80	25.80	3.900	75.00	37.50	37.50	1.38	0.708	0.667	0.020	tr	0.005	0.016
286	MJBKS-1	2r_32_9	25.00	26.00	3.900	195.00	36.40	36.40	2.32	3.188	2.969	0.082	tr	0.027	0.110
287	MJBKS-1	2r_48_3	25.80	26.80	4.100	1210.00	37.80	37.80	0.04	0.312	0.234	tr	-	tr	0.078
288	MJBKS-1	2r_32_10	26.00	27.00	3.500	215.00	40.20	40.20	1.94	2.965	2.751	0.092	tr	0.015	0.107
289	MJBKS-1	2r_48_4	26.80	27.80	3.600	1065.00	36.40	36.40	0.02	0.162	0.122	tr	-	tr	0.040
290	MJBKS-1	2r_40_1	27.30	28.30	4.100	535.00	33.40	33.40	0.08	0.312	0.234	0.020	-	0.016	0.042
291	MJBKS-1	2r_40_2	28.30	29.30	3.700	605.00	37.80	37.80	0.50	0.649	0.259	tr	-	0.026	0.364
292	MJBKS-1	2r_40_3	29.30	30.30	3.600	720.00	33.80	33.80	0.06	0.355	0.178	tr	-	0.024	0.153
293	MJBKS-1	2r_40_4	30.30	31.30	4.100	1075.00	33.40	33.40	0.09	0.707	0.432	0.039	-	tr	0.236
294	MJBKS-7	1r_32_1	21.00	22.00	2.800	26.7	26.70	26.70	1.84	0.657	0.625	0.018	tr	0.004	0.010
295	MJBKS-7	1r_32_2	22.00	23.00	4.500	341.0	31.90	31.90	3.88	9.226	8.679	0.357	tr	0.048	0.142
296	MJBKS-7	1r_32_3	23.00	23.80	2.800	510.0	31.80	31.80	3.25	18.618	17.472	0.745	tr	0.057	0.344
297	MJBKS-7	1r_32_4	23.80	24.80	3.900	1100.0	34.40	34.40	4.96	40.697	38.564	1.313	tr	0.164	0.656
298	MJBKS-7	1r_32_5	24.80	26.00	5.700	1940.0	30.30	30.30	5.00	56.140	53.558	1.684	tr	0.112	0.786
299	MJBKS-7	1r_32_6	26.00	27.00	4.400	1800.0	35.10	35.10	5.95	69.344	66.664	1.748	-	0.116	0.816
300	MJBKS-7	1r_32_7	27.00	28.00	4.200	1522.0	35.70	35.70	7.26	73.689	70.542	2.030	tr	tr	1.117
301	MJBKS-7	1r_32_8	28.00	28.80	2.800	750.0	35.10	35.10	6.96	53.120	51.517	0.992	tr	0.076	0.535
302	MJBKS-7	1r_32_9	28.80	29.30	2.600	166.0	31.10	31.10	1.97	4.046	3.697	0.123	-	tr	0.226
303	MJBKS-7	1r_32_10	29.30	30.00	2.500	230.0	35.80	36.60	0.45	1.130	0.854	0.050	-	tr	0.226
304	MJBKS-7	1r_32_11	30.00	31.00	3.700	315.0	39.30	40.40	0.35	0.738	0.548	0.042	-	0.010	0.138
305	MJBKS-11	114r_32_1	20.00	21.00	3.200	80.0	40.00	40.00	6.22	3.888	3.750	0.075	-	0.031	0.032
306	MJBKS-11	114r_32_2	21.00	22.00	4.100	69.5	34.80	34.80	4.82	2.351	2.254	0.044	tr	0.010	0.043
307	MJBKS-11	114r_32_3	22.00	23.00	4.200	920.0	36.00	36.00	4.93	30.002	28.721	0.791	tr	0.122	0.368
308	MJBKS-11	114r_32_4	23.00	24.00	3.800	1135.0	35.50	35.50	5.95	50.105	48.000	1.179	tr	0.253	0.673
309	MJBKS-11	114r_32_5	24.00	25.00	4.800	1810.0	35.30	35.30	7.48	79.896	76.905	1.709	tr	0.214	1.058
310	MJBKS-11	114r_32_6	25.00	26.00	4.300	255.0	31.90	32.80	0.37	0.668	0.596	0.027	-	tr	0.045
311	MJBKS-11	114r_32_7	26.00	27.00	3.000	150.0	37.50	38.30	0.26	0.340	0.314	0.013	-	tr	0.013
312	MJBKS-13	116r_16_1	26.80	27.80	8.900	80.0	40.00	40.40	6.50	1.450	1.320	0.030	-	0.006	0.094
313	MJBKS-13	116r_16_2	27.80	28.80	10.100	115.0	35.80	36.20	6.80	2.140	1.810	0.050	tr	tr	0.280
314	MJBKS-13	116r_16_3	28.80	29.50	7.700	205.0	38.40	38.70	7.07	4.870	4.610	0.130	tr	0.014	0.116
315	MJBKS-13	116r_16_4	29.50	30.50	15.900	1005.0	31.40	31.50	6.84	13.720	12.360	-	-	0.220	0.860
316	MJBKS-13	116r_16_4/	29.50	30.00	5.900	180.0	33.70	34.00	6.43	5.760	3.060	0.130	-	0.130	0.440
317	MJBKS-13	116r_16_4/	30.00	30.50	6.400	880.0	41.20	41.40	9.45	31.390	29.560	0.800	-	0.330	0.700
318	MJBKS-13	116r_16_5	30.50	31.50	11.500	2380.0	37.10	37.40	9.85	54.510	50.910	1.110	-	0.110	2.380
319	MJBKS-13	116r_16_6	31.50	32.00	9.300	249.0	38.90	39.40	14.45	98.200	93.780	1.700	tr	0.070	2.650
320	MJBKS-13	116r_16_7	32.00	33.00	8.300	210.0	39.30	39.80	1.17	0.740	0.600	0.020	-	tr	0.120

Appendix 2-10 Quantity Mineralogical Analysis of Usual and Check Samples

No.	No. of drillholes	Sample No.	Depth (m)	Weight of dried sample (kg)	Weight of sand after siving (-1.0 m) (g)	Weight of sample for analysis (g)	Weight of sample for separation (g)	Weight of heavy fraction (g)	Content of heavy fraction (kg/t)	Content of heavy fractions				
										Ilmenite (kg/t)	Zircon (kg/t)	Rutile (kg/t)	Leucoxene (kg/t)	the others (kg/t)
321	MJBKS-13	116r_16_8	33.00	7.300	155.0	38.70	39.00	0.20	0.110	0.110	tr	tr	tr	-
322	MJBKS-14	114r_16_1	22.00	3.300	15.4	15.40	15.40	4.06	1.230	1.191	0.024	-	tr	0.015
323	MJBKS-14	114r_16_2	23.00	3.900	30.0	30.00	26.80	2.23	0.572	0.541	0.017	-	0.003	0.011
324	MJBKS-14	114r_16_3	24.00	3.900	85.0	31.80	31.80	3.37	2.307	2.232	0.034	tr	0.007	0.034
325	MJBKS-14	114r_16_4	25.00	3.300	60.0	30.00	30.00	4.94	2.994	2.909	0.067	tr	0.003	0.015
326	MJBKS-14	114r_16_5	26.00	3.900	11.9	11.90	11.90	0.88	0.226	0.213	0.005	tr	tr	0.008
327	MJBKS-15	3r_4_1	17.50	4.000	65.0	32.50	32.50	0.19	0.095	0.080	0.002	-	tr	0.013
328	MJBKS-15	3r_4_2	18.50	4.400	600.0	37.50	37.50	0.08	0.291	0.182	0.036	-	tr	0.073
329	MJBKS-15	3r_4_3	19.60	4.200	240.0	30.00	30.00	0.03	0.057	0.038	tr	-	tr	0.019
330	MJBKS-15	3r_4_4	20.70	4.400	360.0	33.70	33.70	0.05	0.121	0.097	tr	-	tr	0.024
331	MJBKS-15	3r_4_5	21.80	3.200	30.0	30.00	30.00	0.22	0.069	0.056	0.003	-	tr	0.010
332	MJBKS-16	3r_4_1	24.00	3.800	100.0	37.50	37.50	8.81	6.190	5.937	0.162	-	0.014	0.077
333	MJBKS-16	3r_4_2	25.10	3.500	95.0	35.50	35.50	11.67	8.936	8.461	0.191	-	0.008	0.276
334	MJBKS-16	3r_4_3	26.20	3.700	50.0	50.00	48.20	8.39	2.268	2.151	0.059	-	0.003	0.055
335	MJBKS-16	3r_4_4	27.30	3.200	40.0	40.00	44.30	6.76	2.112	1.984	0.081	-	0.003	0.044
336	MJBKS-16	3r_4_5	28.50	3.100	785.0	36.70	36.70	2.84	19.596	18.630	0.483	-	0.034	0.449
337	MJBKS-16	3r_4_6	29.50	2.900	1350.0	31.50	31.50	7.28	107.593	104.490	2.365	-	0.074	0.664
338	MJBKS-16	3r_4_7	30.40	3.600	1620.0	37.9	37.90	10.36	122.996	119.317	2.849	tr	0.059	0.772
339	MJBKS-16	3r_4_8	31.30	3.200	1370.0	32.10	32.10	6.96	92.829	90.028	1.867	-	tr	0.934
340	MJBKS-16	3r_4_9	32.20	3.600	1215.0	37.90	37.90	10.10	89.946	87.720	1.514	-	tr	0.712
341	MJBKS-16	3r_4_10	33.10	2.800	190.0	35.50	35.50	3.14	6.000	5.732	0.134	-	tr	0.134
342	MJBKS-16	3r_4_11	34.00	3.300	95.0	35.50	35.50	3.18	2.582	2.469	0.057	-	0.004	0.052
343	MJBKS-16	3r_4_12	35.00	3.200	195.0	36.40	36.40	0.35	0.586	0.502	0.008	-	0.025	0.051
344	MJBKS-16	3r_4_13	36.00	3.300	100.0	37.50	37.50	1.21	0.979	0.874	0.032	-	0.004	0.069
345	MJBKS-16	3r_4_14	37.00	3.700	14.3	14.30	14.30	1.42	0.384	0.357	0.014	tr	0.001	0.012
346	MJBKS-16	3r_4_15	38.00	3.300	170.0	31.80	31.80	7.30	11.835	11.332	0.324	tr	0.024	0.155
347	MJBKS-16	3r_4_16	39.00	4.400	18.0	18.00	18.00	2.36	0.536	0.518	0.009	tr	0.001	0.008
348	MJBKS-16	3r_4_17	40.00	2.900	35.0	35.00	36.10	4.17	1.438	1.369	0.010	tr	0.003	0.056
349	MJBKS-16	3r_4_18	41.00	2.700	105.0	39.30	39.30	5.05	4.994	4.786	0.109	-	0.010	0.089
350	MJBKS-16	3r_4_19	42.00	3.700	215.0	40.20	40.20	0.07	0.101	0.072	0.007	-	tr	0.022
351	MJBKS-16	3r_4_20	43.00	3.000	115.0	35.80	35.80	0.34	0.364	0.354	0.005	-	tr	0.005
352	MJBKS-16	3r_4_21	44.00	2.600	85.0	31.80	31.80	0.86	0.883	0.832	0.025	-	0.005	0.020
353	MJBKS-17	3r_12_1	27.00	4.100	41.9	41.90	40.30	3.24	0.790	0.756	0.023	tr	0.002	0.009
354	MJBKS-17	3r_12_2	28.00	4.600	28.8	28.80	28.80	1.37	0.298	0.276	0.012	tr	0.002	0.008
355	MJBKS-17	3r_12_3	29.00	5.000	2040.0	31.80	31.80	2.32	29.793	27.996	1.092	tr	0.019	0.686
356	MJBKS-17	3r_12_4	30.30	1.800	39.8	39.80	39.80	5.57	3.094	2.972	0.083	-	0.011	0.028
357	MJBKS-17	3r_12_5	30.60	3.900	23.3	23.30	23.30	1.78	0.456	0.423	0.023	tr	0.003	0.007
358	MJBKS-17	3r_12_6	31.60	4.500	76.0	38.00	38.00	1.90	0.844	0.782	0.040	-	tr	0.022
359	MJBKS-17	3r_12_7	32.60	1.700	155.0	38.80	38.80	5.38	12.659	12.047	0.247	-	tr	0.365
360	MJBKS-17	3r_12_8	33.10	1.400	480.0	30.00	30.00	9.05	103.428	100.000	2.286	tr	0.114	1.028

Appendix 2-10 Quantity Mineralogical Analysis of Usual and Check Samples

No.	No. of drillholes	Sample No.	Depth (m)	Weight of dried sample (kg)	Weight of sand after siving (-1.0 m)	Weight of sample for analysis (g)	Weight of sample for separation (g)	Weight of heavy fraction (g)	Content of heavy fraction (kg/t)	Content of heavy fractions				
										Ilmenite (kg/t)	Zircon (kg/t)	Rutile (kg/t)	Leucoxene (kg/t)	the others (kg/t)
361	MJBKS-17	3r_12_9	33.30	34.30	3.200	10.0	10.00	1.02	0.319	0.291	0.009	-	tr	0.019
362	MJBKS-17	3r_12_10	34.30	35.30	3.200	63.2	31.60	30.50	0.52	0.325	0.288	0.012	tr	0.025
363	MJBKS-18	3r_24_1	19.00	20.00	3.900	20.0	20.00	2.81	0.720	0.690	0.020	tr	-	0.010
364	MJBKS-18	3r_24_2	20.00	21.00	3.600	50.0	37.50	37.80	10.33	3.790	0.073	0.003	tr	3.644
365	MJBKS-18	3r_24_3	21.00	22.00	4.200	140.0	35.00	35.10	3.29	3.130	2.940	0.140	-	0.050
366	MJBKS-18	3r_24_4	22.00	22.80	3.500	295.0	36.80	37.10	4.32	9.810	8.860	0.340	tr	0.610
367	MJBKS-18	3r_24_5	22.80	23.10	1.400	29.0	29.00	29.00	4.64	3.310	5.060	0.140	-	0.240
368	MJBKS-18	3r_24_6	23.10	24.00	2.900	17.0	17.00	16.70	1.57	0.540	0.470	0.020	-	0.048
369	MJBKS-18	3r_24_7	24.00	25.00	4.300	44.0	44.00	46.40	0.46	0.110	0.070	tr	tr	0.040
370	MJBKS-18	3r_24_8	33.00	34.00	5.700	95.0	35.50	35.50	2.87	1.350	1.150	0.070	-	0.110
371	MJBKS-18	3r_24_9	34.00	35.00	4.200	60.0	30.00	30.20	2.52	1.200	1.080	0.020	-	0.070
372	MJBKS-18	3r_24_10	35.00	35.60	2.900	90.0	33.70	33.90	2.40	2.190	2.040	0.060	tr	0.080
373	MJBKS-18	3r_24_11	35.60	36.50	4.400	140.0	35.00	35.40	0.17	0.150	0.080	0.010	-	0.005
374	MJBKS-18	3r_24_12	36.50	37.50	5.000	210.0	39.00	39.60	0.20	0.210	0.120	0.010	-	0.003
375	MJBKS-19	3r_32_1	23.10	24.60	3.700	780.0	36.40	36.70	0.12	0.690	0.400	tr	-	0.090
376	MJBKS-19	3r_32_2	24.60	25.10	1.900	255.0	31.80	32.10	0.20	0.840	0.500	0.010	-	0.020
377	MJBKS-19	3r_32_3	25.10	26.00	3.200	465.0	36.20	36.50	1.04	4.140	3.380	0.060	-	0.060
378	MJBKS-19	3r_32_4	26.00	27.00	3.500	280.0	35.00	35.10	0.37	0.840	0.480	0.020	-	0.010
379	MJBKS-19	3r_32_5	27.00	28.50	5.500	155.0	38.70	38.70	0.05	0.040	0.030	tr	-	0.002
380	MJBKS-19	3r_32_6	28.50	30.00	5.500	240.0	30.00	30.40	0.06	0.090	0.050	tr	-	0.004
381	MJBKS-19	3r_32_7	30.00	31.50	6.100	195.0	36.40	36.60	0.02	0.020	0.010	tr	-	0.010
382	MJBKS-19	3r_32_8	31.50	33.00	7.600	95.0	35.50	36.20	0.15	0.050	0.024	tr	-	0.022
383	MJBKS-19	3r_32_9	33.00	34.00	4.200	340.0	31.80	31.80	0.08	0.200	0.064	0.025	-	0.013
384	MJBKS-20	3r_40_1	26.40	27.40	2.900	400.0	37.50	37.80	0.09	0.330	0.128	0.011	-	0.191
385	MJBKS-20	3r_40_2	27.40	28.40	3.900	480.0	30.00	30.30	0.04	0.160	0.110	0.016	-	0.034
386	MJBKS-20	3r_40_3	28.40	29.00	2.900	435.0	40.60	40.80	0.04	0.147	0.055	tr	-	0.092
387	MJBKS-20	3r_40_4	29.00	30.00	3.900	845.0	39.60	39.80	0.04	0.218	0.082	tr	-	0.016
388	MJBKS-20	3r_40_5	30.00	30.40	1.500	290.0	36.20	36.60	0.10	0.528	0.422	0.011	-	0.095
389	MJBKS-20	3r_40_6	30.40	31.00	2.000	505.0	31.50	32.00	0.02	0.158	0.118	tr	-	0.040
390	MJBKS-20	3r_40_7	31.00	32.00	4.200	1140.0	35.60	35.80	0.04	0.030	0.008	0.002	-	0.020
391	MJBKS-20	3r_40_8	32.00	33.00	4.900	1250.0	39.00	39.40	0.04	0.259	0.065	tr	-	0.155
392	MJBKS-20	3r_40_9	33.00	34.00	4.300	860.0	40.20	40.50	0.01	0.049	0.025	0.015	tr	0.009
393	MJBKS-20	3r_40_10	34.00	35.00	3.900	1250.0	39.00	39.20	0.02	0.164	0.164	tr	-	-
394	MJBKS-20	3r_40_11	35.00	36.00	3.900	930.0	36.20	36.60	0.04	0.261	0.039	0.020	-	0.189
395	MJBKS-20	3r_40_12	36.00	36.40	1.800	535.0	33.40	33.60	0.04	0.354	0.062	tr	-	0.266
396	MJBKS-20	3r_40_13	36.40	37.40	3.000	955.0	37.20	37.60	0.05	0.423	0.068	0.042	-	0.305
397	MJBKS-20	3r_40_14	37.40	38.00	2.200	710.0	33.10	33.30	0.04	0.388	0.009	0.048	-	0.243
398	MJBKS-20	3r_40_15	38.00	39.10	4.300	930.0	36.20	36.60	0.02	0.120	0.040	tr	-	0.080
399	MJBKS-20	3r_40_16	39.10	40.00	3.200	650.0	40.60	41.00	0.03	0.150	0.010	0.020	-	0.120
400	MJBKS-20	3r_40_17	40.00	41.00	4.200	1120.0	35.00	35.40	0.06	0.450	0.038	0.045	-	0.025

Appendix 2-10 Quantity Mineralogical Analysis of Usual and Check Samples

No.	No. of drillholes	Sample No.	Depth (m)	Weight of dried sample (kg)	Weight of sand after siving (-1.0 mm) (g)	Weight of sample for analysis (g)	Weight of sample for separation (g)	Weight of heavy fraction (g)	Content of heavy fraction (kg/t)	Content of heavy fractions				
										Ilmenite (kg/t)	Zircon (kg/t)	Rutile (kg/t)	Leucoxene (kg/t)	the others (kg/t)
401	MJBKS-23	3r_64_1	35.00	5.100	395.0	36.90	36.90	0.20	0.420	0.315	0.021	-	0.020	0.064
402	MJBKS-23	3r_64_2	36.20	1.300	300.0	37.50	37.50	0.22	1.354	1.108	0.092	-	0.090	0.064
403	MJBKS-23	3r_64_3	36.50	1.500	75.0	37.50	37.50	0.17	0.227	0.200	tr	-	0.013	0.014
404	MJBKS-24	114r_0_1	23.00	3.500	55.0	34.30	34.30	2.16	0.987	0.937	0.027	tr	tr	0.023
405	MJBKS-24	114r_0_2	24.00	3.500	60.0	30.00	30.00	2.97	1.697	1.600	0.063	-	0.003	0.031
406	MJBKS-24	114r_0_3	25.00	3.500	20.0	20.00	18.30	0.76	0.217	0.197	0.008	tr	tr	0.012
407	MJBKS-24	114r_0_4	26.00	3.100	50.0	50.00	50.00	8.91	2.874	0.529	0.013	-	-	2.332
408	MJBKS-24	114r_0_5	27.00	4.200	120.0	30.00	30.00	1.58	1.505	0.667	0.028	-	-	0.810
409	MJBKS-25	116r_0_1	27.50	4.900	535.0	33.40	33.70	0.64	2.070	1.750	0.080	-	0.040	0.200
410	MJBKS-25	116r_0_2	28.50	4.500	510.0	31.80	32.20	0.60	2.110	1.800	0.020	-	0.050	0.240
411	MJBKS-25	116r_0_3	29.50	5.900	875.0	40.90	41.50	0.19	0.680	0.430	0.040	-	0.070	0.140
412	MJBKS-25	116r_0_4	30.90	4.300	175.0	32.70	33.00	0.38	0.470	0.360	0.010	-	0.050	0.050
413	MJBKS-25	116r_0_5	32.00	3.700	230.0	35.80	36.20	0.27	0.460	0.210	0.010	-	0.070	0.170
414	MJBKN-2	1c_4_1	57.00	1.500	135.00	33.70	37.30	0.10	0.241	0.193	0.024	-	tr	0.024
415	MJBKN-2	1c_4_2	58.00	3.000	210.00	39.30	39.30	1.30	2.314	2.136	0.089	tr	0.018	0.071
416	MJBKN-2	1c_4_3	59.20	3.000	885.00	40.80	40.80	2.16	15.624	14.467	0.542	tr	0.145	0.470
417	MJBKN-2	1c_4_4	60.30	2.800	610.00	38.10	38.10	1.56	8.914	8.000	0.514	tr	0.114	0.286
418	MJBKN-2	1c_4_5	61.00	5.000	2705.00	31.50	31.50	0.65	11.167	9.793	0.515	tr	0.172	0.687
419	MJBKN-2	1c_4_6	62.00	3.100	1850.00	36.10	36.10	1.07	17.672	15.855	0.661	tr	0.330	0.826
420	MJBKN-2	1c_4_7	63.00	2.600	1420.00	33.10	33.10	0.94	15.510	14.190	0.495	-	0.165	0.660
421	MJBKN-2	1c_4_8	64.00	0.800	210.00	39.00	39.00	0.82	5.535	4.725	0.270	tr	0.135	0.405
422	MJBKN-2	1c_4_9	64.40	1.100	765.00	35.80	35.80	0.57	11.089	8.949	0.681	-	0.292	1.167
423	MJBKN-2	1c_4_10	65.00	2.400	1310.00	40.90	40.90	1.08	14.400	11.867	0.533	-	0.067	1.933
424	MJBKN-2	1c_4_11	66.20	1.900	260.00	32.50	32.50	1.41	5.937	4.463	0.421	-	0.042	1.011
425	MJBKN-3	1c_3_1	51.00	2.400	160.00	40.00	40.00	0.18	0.300	0.233	0.025	-	tr	0.042
426	MJBKN-3	1c_3_2	51.70	3.200	500.00	31.20	31.20	0.09	0.450	0.250	0.050	-	tr	0.150
427	MJBKN-3	1c_3_3	53.00	2.900	1220.00	38.10	35.50	0.19	2.254	1.661	0.356	tr	0.059	0.178
428	MJBKN-3	1c_3_4	54.00	3.100	1035.00	32.00	32.00	0.11	1.146	0.781	0.156	-	0.052	0.157
429	MJBKN-3	1c_3_5	55.00	3.400	1100.00	34.00	34.00	0.11	1.048	0.715	0.190	-	0.048	0.095
430	MJBKN-3	1c_3_6	56.00	3.300	1220.00	38.10	38.10	0.20	1.939	1.454	0.025	-	0.097	0.146
431	MJBKN-3	1c_3_7	57.00	3.300	1050.00	32.80	32.80	0.19	1.842	1.261	0.339	-	0.097	0.145
432	MJBKN-3	1c_3_8	58.00	3.600	1370.00	32.10	32.10	0.20	2.372	1.898	0.178	-	0.059	0.237
433	MJBKN-3	1c_3_9	59.00	3.900	1720.00	40.20	40.20	0.23	2.524	1.975	0.274	-	0.110	0.165
434	MJBKN-3	1c_3_10	60.00	3.800	620.00	38.70	38.70	0.11	0.463	0.274	0.063	-	0.025	0.101
435	MJBKN-3	1c_3_11	61.00	3.300	1495.00	34.90	34.90	0.30	3.891	2.298	0.398	tr	0.194	1.001
436	MJBKN-3	1c_3_12	62.00	2.700	705.00	33.00	33.00	1.08	8.560	7.847	0.317	tr	0.119	0.277
437	MJBKN-3	1c_3_13	63.00	2.500	410.00	38.40	38.40	0.07	0.300	0.257	tr	-	tr	0.043
438	MJBKN-5	1c_1_1	53.00	3.000	290.00	36.20	36.20	0.19	0.507	0.427	0.040	-	tr	0.040
439	MJBKN-5	1c_1_2	53.70	2.600	200.00	37.50	37.50	0.08	0.164	0.123	0.010	-	tr	0.031
440	MJBKN-5	1c_1_3	54.40	3.400	740.00	34.60	34.60	0.68	4.278	3.900	0.126	tr	0.063	0.189

Appendix 2-10 Quantity Mineralogical Analysis of Usual and Check Samples

No.	No. of drillholes	Sample No.	Depth (m)	Weight of dried sample (kg)	Weight of sand after sifting (-1.0 mm) (g)	Weight of sample for analysis (g)	Weight of sample for separation (g)	Weight of heavy fraction (g)	Content of heavy fraction (kg/t)	Content of heavy fractions				
										Ilmenite (kg/t)	Zircon (kg/t)	Rutile (kg/t)	Leucosene (kg/t)	the others (kg/t)
441	MIJKN-5	1c 1_4	55.10	3.500	105.00	39.30	39.30	0.12	0.092	0.061	0.008	-	0.008	0.015
442	MIJKN-5	1c 1_5	65.00	2.500	520.00	32.50	32.50	0.68	4.352	3.840	0.256	-	0.064	0.192
443	MIJKN-5	1c 1_6	66.00	2.500	975.00	30.40	30.40	0.68	8.704	7.168	0.448	tr	0.256	0.832
444	MIJKN-5	1c 1_7	67.00	2.900	1610.00	37.60	37.60	0.60	8.859	7.973	0.221	tr	0.148	0.517
445	MIJKN-5	1c 1_8	68.00	2.200	1050.00	32.80	32.80	0.52	7.564	6.545	0.218	tr	0.291	0.510
446	MIJKN-5	1c 1_9	69.00	2.700	125.00	31.20	31.20	0.09	0.133	0.067	0.015	tr	0.007	0.044

**Appendix 2-11 Inside Geological Check of
Mineralogical Analysis**

Appendix 2-11 Inside Geological Check of Mineralogical Analysis (I)

No.	Sample No.	Primary weight of dry sample (kg)	Weight of black sand after sieving (g)	Weight of specimen for mineralogical analysis (g)	Specimen for separation (g)	Weight of heavy fraction (g)	Content of heavy fraction (kg/t)	Ilmenite		Zircon			
								Classes of content		Classes of content		Content (kg/t)	
								Basic	Checking	Basic	Checking	Checking	Checking
1	253	5.0	2040	34.90	34.90	3.71	43.333	I	II	I	II	41.347	1.577
2	254	1.4	480	31.50	31.50	10.22	110.960	III	III*	II	II	107.160	2.171
3	255	4.2	920	31.50	31.50	4.47	31.077	I	I	I	I	29.408	1.112
4	256	3.8	1135	34.00	34.00	5.68	49.924	II	II	I	I	47.551	1.274
5	257	4.8	1810	28.90	28.90	5.62	73.329	III	III	II	I	69.806	1.566
6	258	3.1	785	34.80	34.80	5.70	41.555	I	II	I	I	39.514	1.239
7	259	2.9	1350	41.90	41.90	9.95	110.479	III*	III*	II	II	106.593	3.109
8	260	3.6	1620	41.50	41.50	10.36	112.233	III*	III*	II	II	108.333	2.492
9	261	3.2	1370	37.30	37.30	8.08	92.668	III	III	II	II	88.823	2.064
10	262	3.6	1215	49.50	49.50	13.94	94.869	III	III	I	II	91.875	1.838
11	263	3.3	170	30.40	30.40	4.78	8.112	I	-	I	I	7.772	0.221
12	264	15.9	1005	40.00	40.00	8.34	13.116	I	I	I	I	12.630	0.300
13	265	11.5	2380	37.90	36.90	8.42	47.225	II	II	I	I	45.543	1.122
14	266	9.3	2490	39.40	39.40	14.10	95.819	III	III	II	II	92.625	1.767
15	267	6.4	880	33.70	33.70	7.43	30.300	I	I	I	I	29.036	0.856
16	268	3.9	1100	30.30	30.30	4.49	41.792	I	II	I	I	39.744	1.396
17	269	5.7	1940	36.40	36.40	6.74	63.025	II	III	II	II	60.500	1.870
18	270	4.4	1800	37.00	37.00	7.51	82.951	III	III	II	II	79.527	2.651
19	271	4.2	1522	37.30	37.30	8.27	80.337	III	III	II	II	79.171	2.428
20	272	2.8	750	32.40	32.40	6.77	55.852	II	II	I	I	53.790	1.444
21	273	8.6	1325	30.50	30.50	7.10	35.830	I	I	I	I	34.518	0.479
22	274	9.0	4085	35.00	35.00	7.55	97.898	III	III	I	II	95.435	1.751
23	275	11.0	8215	31.70	31.70	7.27	171.242	III*	III*	II	II	165.588	2.709
24	276	11.3	3595	33.50	33.50	3.37	32.000	I	I	I	I	30.386	0.807
25	277	13.4	6765	35.50	35.50	6.15	87.477	III	III	I	I	85.059	1.494
26	278	9.3	4035	27.90	27.90	1.74	27.054	I	I	I	I	25.499	0.777
27	279	10.2	4015	29.00	29.00	8.74	118.590	III*	III*	II	I	113.569	1.289
28	280	5.7	1117	35.20	35.20	6.24	34.703	I	I	I	I	33.535	0.834
29	281	3.6	2140	38.20	39.20	11.17	169.412	III*	III*	II	II	163.193	2.958
30	282	4.6	2840	32.50	32.50	7.44	141.360	III*	III*	II	I	137.370	1.520

Appendix 2-11 Inside Geological Check of Mineralogical Analysis (1)

No.	Sample No.	Primary weight of dry sample (kg)	Weight of black sand after sieving (g)	Weight of specimen for mineralogical analysis (g)	Specimen for separation (g)	Weight of heavy fraction (g)	Content of heavy fraction (kg/t)	Ilmenite		Zircon	
								Classes of content	Content (kg/t)	Classes of content	Content (kg/t)
31	283	6.7	2990	36.00	36.00	11.89	147.294	III*	142.463	II	2.416
32	284	6.8	730	34.50	34.50	8.10	25.253	I	24.442	I	0.421
33	285	13.0	1465	32.70	32.70	10.76	37.081	I	35.564	I	0.793
34	286	6.2	1562	34.00	34.00	7.48	55.497	II	49.710	I	1.150
35	287	9.2	2930	33.00	33.00	15.30	147.678	III	144.203	II	2.654
36	288	9.3	1865	32.90	32.90	4.76	29.021	I	27.557	I	0.427
37	289	6.9	2245	35.70	35.70	10.29	93.803	III	90.795	I	1.960
38	290	7.0	2770	26.00	26.00	11.69	177.246	III*	171.161	II	3.271
39	291	12.9	4230	27.70	27.70	7.07	83.689	III*	81.322	I	1.006
40	292	9.6	5910	37.00	37.00	7.19	119.609	III*	115.616	I	2.412
41	293	8.4	4165	31.00	31.00	7.06	112.960	III	108.480	I	1.680
42	294	9.2	2760	34.50	34.50	3.81	33.130	I	32.087	I	0.696
43	295	8.4	2320	33.20	33.20	5.84	48.597	II	47.016	I	1.040
44	296	6.7	855	26.50	26.50	5.35	25.792	I	24.876	I	0.362
45	297	7.1	2745	27.40	27.40	6.84	96.531	III*	92.297	I	1.835
46	298	7.2	2395	39.50	39.50	10.61	89.301	III	85.092	I	1.473
47	299	6.2	2245	38.50	38.50	15.00	141.048	III*	132.585	II	2.586
48	300	3.6	1150	35.50	35.50	15.50	139.500	III*	128.430	II	2.520
49	301	4.0	735	36.50	36.50	3.90	19.598	I	18.944	I	0.427
50	302	8.8	1345	28.60	28.60	5.07	27.078	I	26.277	I	0.534
51	303	9.4	1745	31.70	31.70	5.27	30.835	I	30.133	I	0.468
52	304	13.2	6595	36.50	36.50	12.40	169.748	III*	163.588	II	2.533
53	305	15.3	3480	29.50	29.50	6.44	49.668	II	47.431	I	0.810
54	306	6.6	1505	32.70	32.70	5.51	38.403	I	35.894	I	0.802
55	307	16.4	8600	29.50	29.50	4.91	87.272	III*	83.540	I	1.422
56	308	11.1	2505	34.20	34.20	8.31	54.801	I	52.361	I	1.121
57	309	9.2	1625	34.10	34.10	14.96	77.402	III	73.521	I	1.086
58	310	2.5	1820	45.50	45.50	7.46	119.200	III*	114.720	I	1.440
59	311	4.4	1255	37.90	37.90	6.33	47.619	II	45.738	I	0.903
60	312	3.9	955	37.70	37.70	3.54	22.965	I	22.056	I	0.584

Appendix 2-11 Inside Geological Check of Mineralogical Analysis (1)

No.	Sample No.	Primary weight of dry sample (kg)	Weight of black sand after sieving (g)	Weight of specimen for mineralogical analysis (g)	Specimen for separation (g)	Weight of heavy fraction (g)	Content of heavy fraction (kg/t)	Ilmenite		Zircon			
								Classes of content		Classes of content		Content (kg/t)	
								Basic	Checking	Basic	Checking	Checking	Checking
61	313	4.0	2085	35.00	35.00	5.15	76.735	III	III	74.798	I	I	1.266
62	314	3.2	500	42.00	42.00	7.44	27.900	I	I	26.775	I	I	0.431
63	315	4.3	885	37.50	37.50	3.13	17.179	I	I	16.355	I	I	0.384
64	316	5.1	2100	28.40	26.40	3.88	60.482	II	III	58.456	I	I	0.779
65	317	5.2	2119	35.90	35.90	10.37	117.660	III*	III*	110.171	I	I	1.418
66	318	6.6	940	38.80	38.80	4.87	17.857	I	I	17.013	I	I	0.477
67	319	18.7	5090	46.60	46.00	14.90	88.205	III	III	84.061	I	I	1.480
68	320	7.9	1580	38.90	36.90	12.02	65.121	III	III	59.324	I	II	1.625
69	321	4.8	1185	35.80	35.80	4.26	29.376	I	I	28.342	I	I	0.621
70	322	8.9	2210	33.20	33.20	4.15	31.055	I	I	29.783	I	I	0.524
71	323	7.0	2115	28.20	28.20	2.81	30.107	I	I	29.036	I	I	0.589
72	324	8.7	3530	30.30	30.30	3.90	52.225	I	II	50.484	I	I	0.796
73	325	9.1	5385	25.30	25.30	4.19	97.982	III	III	93.538	I	II	1.707
74	326	7.3	2755	31.40	31.40	3.23	38.804	I	I	37.483	I	I	0.721
75	327	6.4	2245	37.90	37.90	2.68	24.790	I	I	23.772	I	I	0.490
76	328	7.9	4185	26.90	26.90	3.14	61.846	III	III	59.876	I	I	0.985
77	329	5.0	2095	29.70	29.70	4.62	65.142	III	III	62.040	I	I	1.198
78	330	6.1	2705	26.60	26.60	4.09	68.189	III	III	66.188	I	I	1.334
79	331	11.5	6200	33.70	33.70	6.98	111.680	III	III	106.720	II	II	1.680
80	332	7.2	2840	34.50	34.50	3.81	43.550	II	II	42.064	I	I	0.857
81	333	4.3	1730	31.10	31.10	6.25	80.814	III	III	77.840	I	II	1.746
82	334	9.6	4850	32.70	32.70	3.30	50.978	II	II	49.124	I	I	1.081
83	335	11.3	5625	26.70	26.70	3.51	65.448	II	III	63.769	I	I	1.063
84	336	8.9	4140	30.20	30.20	3.60	55.416	II	II	53.568	I	I	1.078
85	337	10.4	3750	39.00	39.00	4.38	40.515	II	II	39.312	I	I	0.648
86	338	7.0	2875	32.50	32.50	4.34	54.870	II	II	53.226	I	I	0.948
87	339	10.0	4515	31.60	31.60	4.28	61.162	II	III	59.304	I	I	1.072
88	340	9.3	4390	34.80	34.80	4.22	57.265	II	II	54.958	I	I	1.357
89	341	8.9	2435	38.90	38.90	5.06	35.591	II	I	34.465	I	I	0.668
90	342	6.4	3050	42.70	42.70	4.84	53.996	II	II	52.434	I	I	1.066

**Appendix 2-12 Outside Geological Check of
Mineralogical Analysis**

Appendix 2-12 Outside Geological Check of Mineralogical Analysis

No.	Sample No.	Primary weight of dry sample (kg)	Weight of black sand after sieving (g)	Weight of specimen for mineralogical analysis (g)	Specimen for separation (g)	Weight of heavy fraction (g)	Content of heavy fraction (kg/t)	Ilmenite			Zircon		
								Classes of content		Content (kg/t)	Classes of content		Content (kg/t)
								Basic	Checking	g	Basic	Checking	g
1	253	5.0	2040	38.9	38.75	4.09	43.06	I	I	38.19	I	I	1.34
2	254	1.4	480	32.4	32.24	10.69	113.68	III	III*	100.75	II	II	2.84
	254	1.4	480	32.4	32.24	10.69	113.68	III	III*	101.59	II	II	2.04
3	255	4.2	920	33.0	33.24	4.76	31.76	I	I	29.38	I	I	1.00
4	256	3.8	1135	34.0	34.40	5.87	50.97	II	II	47.22	I	I	1.45
5	257	4.8	1810	27.6	27.64	6.12	83.49	III	III	72.39	II	II	1.98
6	258	3.1	785	32.7	32.57	6.54	50.85	I	I	38.53	I	I	1.41
7	259	2.9	1350	38.5	38.44	10.05	121.71	III*	III*	112.70	II	II	3.08
8	260	3.6	1620	36.7	36.63	9.81	120.51	III*	III*	107.03	II	II	2.62
9	261	3.2	1370	34.9	35.09	8.48	103.46	III	III	87.24	II	II	2.51
10	262	3.6	1215	42.4	42.36	12.45	99.19	III	III	90.33	I	I	1.56
11	263	3.3	170	33.0	32.83	5.91	9.27	I	I	7.76	I	I	0.32
	263	3.3	170	33.0	32.83	5.91	9.27	I	I	7.76	I	I	0.32
12	264	15.9	1005	32.7	32.57	7.90	15.33	I	I	12.53	I	I	0.27
13	265	11.5	2380	40.7	40.65	9.46	48.16	II	II	44.56	I	I	0.90
14	266	9.3	2490	41.0	40.90	16.00	104.74	III	III	94.36	II	II	1.81
15	267	6.4	880	38.5	38.27	9.51	34.17	I	I	30.64	I	I	0.83
16	268	3.9	1100	31.0	31.15	5.15	46.63	I	I	38.70	I	I	1.52
17	269	5.7	1940	34.8	34.79	6.60	64.57	II	II	52.84	II	II	2.02
18	270	4.4	1800	32.7	32.90	7.04	87.54	III	III	82.76	II	II	2.39
19	271	4.2	1522	34.6	34.71	8.46	88.32	III	III	82.55	II	II	2.46
20	272	2.8	750	34.7	35.11	7.41	56.53	II	II	52.46	I	I	1.57
21	273	8.6	1325	28.7	28.70	7.40	39.73	I	I	35.72	I	I	0.64
22	274	9.0	4085	31.9	31.73	7.50	107.29	III	III	84.77	I	I	1.56
23	275	11.0	8215	24.9	24.83	6.63	199.41	III*	III*	189.40	II	II	3.04
24	276	11.3	3595	28.0	27.74	3.03	34.75	I	I	31.15	I	I	0.99

Appendix 2-12 Outside Geological Check of Mineralogical Analysis

No.	Sample No.	Primary weight of dry sample (kg)	Weight of black sand after sieving (g)	Weight of specimen for mineralogical analysis (g)	Specimen for separation (g)	Weight of heavy fraction (g)	Content of heavy fraction (kg/t)	Ilmenite		Zircon		
								Classes of content	Content (kg/t)	Classes of content	Content (kg/t)	
25	277	13.4	6765	31.5	31.32	6.10	98.33	III	III	I	I	1.23
26	278	9.3	4035	31.5	31.30	2.39	33.13	I	I	I	I	0.72
27	279	10.2	4015	29.7	29.58	9.69	128.95	III*	III*	II	II	1.62
28	280	5.7	1117	32.5	32.38	6.96	42.12	I	I	I	I	0.76
29	281	3.6	2140	35.5	35.38	10.47	175.91	III*	III*	II	II	2.46
30	282	4.6	2840	32.7	32.63	7.77	147.02	III*	III*	II	II	2.63
31	283	6.7	2990	34.9	35.04	11.56	147.22	III*	III*	II	II	2.51
32	284	6.8	730	29.7	29.72	8.37	30.23	I	I	I	I	0.50
33	285	13.0	1465	29.3	29.46	10.54	40.32	I	I	I	I	0.65
34	286	6.2	1562	31.2	31.28	7.68	61.86	II	II	I	I	1.06
35	287	9.2	2930	29.9	29.87	15.63	166.65	III	III*	II	II	2.47
36	288	9.3	2930	29.9	29.87	15.63	166.65	III	III*	II	II	2.47
37	289	6.9	1865	31.6	31.48	7.14	45.48	I	I	I	I	0.57
38	290	7.0	2245	31.0	30.86	9.77	103.00	III	III	I	II	1.92
39	291	12.9	2770	30.5	30.09	12.92	169.91	III*	III*	I	II	1.96
40	292	12.9	4230	32.9	32.95	9.56	95.14	III*	III	II	II	2.61
41	293	9.6	4230	32.9	32.95	9.56	95.14	III*	III	II	II	1.37
42	294	8.4	5910	31.0	31.11	6.63	131.20	III*	III*	I	I	1.49
43	295	8.4	4165	30.0	30.22	6.71	110.09	III	III	I	I	1.57
44	296	9.2	2760	34.5	34.77	4.53	39.08	I	I	I	I	1.51
45	297	8.4	2320	33.0	32.00	6.66	57.48	II	II	I	I	0.69
46	298	6.7	855	33.2	33.20	7.78	29.90	I	I	I	I	0.87
47	299	7.1	2745	29.4	29.25	8.24	108.91	III*	III*	I	I	0.40
48	300	7.2	2395	34.8	34.78	10.30	98.51	III	III	I	I	1.52
49	301	6.2	2245	39.4	39.44	15.99	146.80	III*	III*	II	II	1.57
		3.6	1150	34.9	34.92	15.47	141.52	III*	III*	II	II	2.54
		4.0	735	30.5	30.48	3.65	22.00	I	I	I	I	2.39
												0.52

Appendix 2-12 Outside Geological Check of Mineralogical Analysis

No.	Sample No.	Primary weight of dry sample (kg)	Weight of black sand after sieving (g)	Weight of specimen for mineralogical analysis (g)	Specimen for separation (g)	Weight of heavy fraction (g)	Content of heavy fraction (kg/t)	Ilmenite		Zircon					
								Classes of content		Classes of content		Content (kg/t)			
								Basic	Checking	Basic	Checking	Basic	Checking		
50	302	8.8	1345	23.0	24.05	4.66	29.62	I	I	I	I	27.19	I	I	0.67
51	303	9.4	1745	28.0	28.03	5.23	34.64	I	I	I	I	31.11	I	I	0.62
52	304	13.2	6595	32.0	32.30	10.97	169.69	III*	III*	II	II	161.19	II	II	2.19
53	305	15.3	3480	28.4	28.26	7.21	58.03	II	II	II	II	52.48	II	II	1.13
54	306	6.6	1505	31.0	30.83	6.12	45.27	I	I	I	I	38.39	I	I	0.74
55	307	16.4	8600	29.7	29.49	5.74	102.07	III*	III	I	I	90.68	I	I	1.57
		16.4	8600	29.7	29.49	5.74	102.07	III*	III	I	I	90.80	I	I	1.49
56	308	11.1	2505	32.0	32.14	8.94	62.77	I	II	I	I	54.14	I	I	1.10
		11.1	2505	32.0	32.14	8.94	62.77	I	II	I	I	54.43	I	I	0.99
57	309	9.2	1625	29.0	29.07	13.62	82.76	III	III	I	I	74.20	I	I	1.23
58	310	2.5	1820	40.5	40.25	8.30	150.12	III*	III*	I	II	144.56	I	II	2.23
		2.5	1820	40.5	40.25	8.30	150.12	III*	III*	I	II	143.18	I	II	2.28
59	311	4.4	1255	37.7	37.45	8.07	61.46	II	II	I	I	45.56	I	I	0.76
60	312	3.9	955	44.4	44.20	4.00	22.16	I	I	I	I	19.27	I	I	0.43
61	313	4.0	2085	29.7	29.70	4.63	81.26	III	III	I	I	76.56	I	I	1.12
62	314	3.2	500	51.0	50.95	9.14	28.58	I	I	I	I	25.55	I	I	0.43
63	315	4.3	885	41.9	41.79	9.36	46.10	I	I	I	I	14.71	I	I	0.28
64	316	5.1	2100	28.9	28.77	6.53	93.46	II	II	I	I	56.40	I	I	1.04
65	317	5.2	2119	37.9	37.77	11.26	121.48	III*	III*	I	I	114.88	I	I	1.32
66	318	6.6	940	39.7	39.76	4.92	17.62	I	I	I	I	16.19	I	I	0.48
67	319	18.7	5090	41.5	41.34	11.48	75.59	III	III	I	I	71.92	I	I	1.47
68	320	7.9	1580	32.7	32.65	11.95	73.26	III	III	I	I	63.52	I	I	1.55
69	321	4.8	1185	28.9	29.09	3.89	33.01	I	I	I	I	30.07	I	I	0.77
70	322	8.9	2210	33.2	33.21	6.65	49.72	I	I	I	I	27.85	I	I	0.67
71	323	7.0	2115	24.9	25.15	3.55	42.65	I	I	I	I	30.91	I	I	0.70
72	324	8.7	3530	28.3	28.13	3.95	56.97	I	II	I	I	48.22	I	I	0.94
		8.7	3530	28.3	28.13	3.95	56.97	I	II	I	I	48.22	I	I	0.94
73	325	9.1	5385	25.0	25.08	5.01	118.21	III	III	I	I	99.72	I	I	1.39

Appendix 2-12 Outside Geological Check of Mineralogical Analysis

No. Sample No.	Primary weight of dry sample (kg)	Weight of black sand after sieving (g)	Weight of specimen for mineralogical analysis (g)	Specimen for separation (g)	Weight of heavy fraction (g)	Content of heavy fraction (kg/t)	Ilmenite			Zircon		
							Classes of content		Content (kg/t)	Classes of content		Content (kg/t)
							Basic	Checkin g	Checking	Basic	Checkin g	Checking
74	326	2755	30.5	30.63	3.78	46.57	I	I	36.79	I	I	0.73
75	327	2245	30.9	31.07	5.39	60.85	I	I	24.66	I	I	0.61
76	328	4185	28.5	28.37	3.28	68.72	III	III	37.31	I	I	0.93
77	329	2095	24.8	25.06	4.37	73.07	III	III	60.36	I	I	0.93
78	330	2705	25.5	25.55	4.68	81.23	III	III	70.59	I	I	1.32
79	331	6200	30.2	30.30	6.97	124.02	III	III*	114.32	II	II	1.57
		6200	30.2	30.30	6.97	124.02	III	III*	113.21	II	II	1.61
80	332	2840	33.6	33.33	3.78	44.73	II	II	41.11	I	I	0.70
81	333	1730	33.6	33.84	7.71	91.66	III	III	82.81	I	I	1.44
82	334	4850	27.7	27.70	3.52	64.20	II	III	58.21	I	I	1.29
		4850	27.7	27.70	3.52	64.20	II	III	58.47	I	I	1.30
83	335	5625	29.1	29.18	4.11	70.11	II	III	64.75	I	I	1.10
		5625	29.1	29.18	4.11	70.11	II	III	64.28	I	I	1.08
84	336	4140	33.6	33.01	4.25	59.89	II	II	55.42	I	I	0.91
85	337	3750	44.0	44.05	5.51	45.10	II	II	39.04	I	I	0.62
86	338	2875	26.9	26.82	4.14	63.40	II	III	57.56	I	I	1.12
87	339	4515	29.3	29.42	4.30	65.99	II	III	61.87	I	I	1.07
		4515	29.3	29.42	4.30	65.99	II	III	61.87	I	I	1.12
88	340	4390	39.0	39.07	4.31	52.07	II	II	45.71	I	I	1.05
89	341	2435	35.0	34.90	4.67	36.61	II	I	33.43	I	I	0.71
		2435	35.0	34.90	4.67	36.61	II	I	33.39	I	I	0.72
90	342	3050	38.7	38.77	5.12	62.94	II	II	55.42	I	I	1.04

**Appendix 2-13 Chemical Analysis of Check Samples
for TiO₂ and ZrO₂**

Appendix 2-13 Chemical Analysis of Check Samples for TiO₂ and ZrO₂

No.	No. of drillholes	Sample No.	Sampling position (m)			Assay results (%)	
			from		to	ZrO ₂	TiO ₂
1	MJBK-37	14 22 1	28.0	-	29.2	0.026	1.13
2	MJBK-37	14 22 2	29.2	-	30.3	0.028	1.20
3	MJBK-37	14 22 3	30.3	-	31.5	0.023	0.98
4	MJBK-37	14 22 4	31.5	-	32.5	0.027	1.74
5	MJBK-37	14 22 5	32.5	-	33.5	0.027	1.75
6	MJBK-37	14 22 6	33.5	-	34.5	0.016	1.19
7	MJBK-37	14 22 7	34.5	-	35.5	0.020	1.03
8	MJBK-37	14 22 12	35.5	-	36.5	0.024	0.99
						0.027	0.94
9	MJBK-37	14 22 14	42.0	-	43.0	0.027	1.10
10	MJBK-37	14 22 15	43.0	-	44.0	0.027	0.94
11	MJBKS-18	3 r 24 9	34.0	-	35.0	0.028	0.96
12	MJBKS-18	3 r 24 10	35.0	-	35.6	0.015	0.78
13	MJBKS-16	3 r 4 3	26.2	-	27.3	0.058	2.20
14	MJBKS-16	3 r 4 4	27.3	-	28.5	0.063	2.23
15	MJBKS-16	3 r 4 5	28.5	-	29.5	0.100	4.00
16	MJBKS-16	3 r 4 6	29.5	-	30.4	0.160	7.11
17	MJBKS-16	3 r 4 7	30.4	-	31.3	0.053	1.95
18	MJBKS-16	3 r 4 8	31.3	-	32.2	0.110	5.46
19	MJBKS-16	3 r 4 9	32.2	-	33.1	0.120	6.44
20	MJBKS-16	3 r 4 10	33.1	-	34.0	0.030	1.06
21	MJBKS-16	3 r 4 11	34.0	-	35.0	0.038	1.63
						0.042	1.46
22	MJBKS-16	3 r 4 12	35.0	-	36.0	0.026	0.90
23	MJBKS-16	3 r 4 13	36.0	-	37.0	0.024	1.16
24	MJBKS-16	3 r 4 14	37.0	-	38.0	0.047	1.81
25	MJBKS-16	3 r 4 15	38.0	-	39.0	0.055	2.35
26	MJBKS-16	3 r 4 19	42.0	-	43.0	0.026	0.72
27	MJBKS-16	3 r 4 20	43.0	-	44.0	0.027	0.77
28	MJBKS-16	3 r 4 21	44.0	-	45.0	0.019	0.83
29	MJBKS-20	3 r 40 13	36.4	-	37.4	0.027	0.86
						0.027	0.94
30	MJBKS-20	3 r 40 14	37.4	-	38.0	0.024	0.79
31	MJBKS-20	3 r 40 15	38.0	-	39.1	0.024	0.76
32		1 κ		-		0.180	9.14

**Appendix 2-14 Grainmetric Analysis of
Monomineral Fraction of Ilmenite**

Appendix 2-14 Grainmetric Analysis of Monomineral Fraction of Ilmenite

No.	Hole No.	Depth (m)	Class of granulation (mm)																total
			-0.63	-0.40	-0.25	-0.20	-0.16	-0.125	-0.10	-0.09	-0.063	-0.063	-0.05	-0.04	-0.04	-0.04			
			+0.40	+0.25	+0.20	+0.16	+0.125	+0.10	+0.09	+0.063	+0.05	+0.04	+0.04	+0.04	+0.04				
1	MJBK-18	25.0 - 28.5	1.40	16.10	19.40	22.80	17.80	9.60	4.20	3.80	4.20	0.40	0.30	100.00					
2	MJBK-21	37.5 - 41.2	1.50	18.50	15.40	24.70	15.40	10.80	4.60	4.60	1.50	1.50	1.50	100.00					
3	MJBK-22	37.8 - 42.8	0.40	18.30	21.90	24.80	18.80	7.70	3.00	3.00	0.90	0.30	0.90	100.00					
4	MJBK-23	38.1 - 40.0	5.60	26.40	26.90	23.90	8.90	5.60	1.80	0.40	0.30	0.10	0.10	100.00					
5	MJBK-24	40.8 - 42.1	4.10	30.00	22.80	19.60	11.40	6.20	2.10	2.10	0.90	0.50	0.30	100.00					
6	MJBK-24	55.5 - 56.2	0.60	13.90	18.20	29.90	23.50	9.60	2.10	1.10	0.50	0.30	0.30	100.00					
7	MJBK-26	38.0 - 40.5	1.60	7.00	11.90	20.50	19.50	16.20	9.20	9.20	2.70	1.10	1.10	100.00					
8	MJBK-26	45.0 - 48.0	5.00	19.80	17.30	22.30	14.90	9.90	5.00	5.00	0.50	0.20	0.10	100.00					
9	MJBK-27	39.0 - 44.5	3.10	6.10	12.30	18.40	21.50	15.30	9.20	6.10	3.10	3.10	1.80	100.00					
10	MJBK-27	47.0 - 48.0	2.90	19.10	19.10	23.50	19.10	8.80	2.90	1.50	1.50	0.90	0.70	100.00					
11	MJBK-28	43.5 - 48.5	1.20	13.10	16.90	25.00	19.60	10.80	6.20	5.40	1.20	0.30	0.30	100.00					
12	MJBK-29	43.0 - 48.0	3.70	12.70	18.20	23.60	21.80	9.10	1.80	3.70	1.80	1.80	1.80	100.00					
13	MJBK-30	40.5 - 43.5	2.90	2.60	29.20	30.80	18.20	7.80	3.20	2.90	1.60	0.40	0.40	100.00					
14	MJBK-31	46.0 - 49.5	2.10	13.90	14.70	20.80	20.20	12.30	7.50	6.30	1.80	0.20	0.20	100.00					
15	MJBK-32	53.0 - 58.0	3.20	19.40	16.20	22.70	16.20	9.70	6.50	3.20	1.60	1.00	0.30	100.00					
16	MJBK-33	41.0 - 51.0	1.90	14.90	18.00	23.40	17.40	9.80	6.00	5.20	2.20	0.60	0.60	100.00					
17	MJBK-34	42.0 - 45.4	1.20	15.20	19.80	27.60	19.60	8.10	3.70	3.50	0.90	0.30	0.10	100.00					
18	MJBK-35	43.0 - 44.8	1.90	19.00	17.10	28.00	18.20	8.20	3.80	3.00	0.50	0.10	0.20	100.00					
19	MJBK-36	41.0 - 50.3	1.50	17.00	19.50	20.80	17.00	10.20	6.00	7.00	0.80	0.10	0.10	100.00					

**Appendix 2-15 Grainmetric Analysis of
Monomineral Fraction of Zircon**

Appendix 2-15 Grainmetric Analysis of Monomineral Fraction of Zircon

No.	Hole No.	Depth (m)	Class of granulation (mm)														total							
			-0.63	+0.40	-0.40	+0.25	-0.25	+0.20	-0.20	+0.16	-0.16	+0.125	-0.125	+0.09	-0.09	+0.063		-0.063	+0.05	-0.05	+0.04	-0.04	+0.00	
1	MJBK-18	25.0 - 28.5	0.90	15.00	12.70	27.90	20.20	11.20	6.10	3.60	1.80	0.40	0.20	100.00										
2	MJBK-22	37.8 - 42.8	0.60	9.80	11.00	23.00	22.60	14.40	8.20	7.70	2.00	0.50	0.20	100.00										
3	MJBK-26	38.0 - 40.5	-	2.60	4.40	12.00	21.70	19.90	13.00	17.50	6.00	1.70	1.20	100.00										
4	MJBK-28	43.5 - 48.5	-	1.90	0.90	26.90	23.20	18.70	11.50	12.40	3.20	0.80	0.50	100.00										
5	MJBK-30	40.5 - 43.5	0.30	8.70	11.80	27.50	21.90	12.70	7.40	5.70	1.30	1.20	1.50	100.00										
7	MJBK-31	46.0 - 49.5	0.40	6.70	7.80	16.10	23.50	18.50	12.00	10.20	3.50	0.80	0.50	100.00										
8	MJBK-33	41.0 - 51.0	0.30	4.60	6.80	13.60	20.20	11.90	16.20	16.50	6.30	2.20	1.40	100.00										
6	MJBK-34	42.0 - 45.4	0.30	5.50	9.00	21.70	24.10	16.40	9.11	9.50	2.60	0.80	1.00	100.00										
9	MJBK-35	43.0 - 44.8	1.60	7.60	12.00	24.70	22.70	13.50	8.60	6.80	1.60	0.50	0.40	100.00										
10	MJBK-36	41.0 - 50.3	0.50	7.50	8.80	17.10	19.40	17.80	11.00	12.40	4.00	0.90	0.60	100.00										

**Appendix 2-16 Chemical and Spectral Quantity Analysis
of Ilmenite**

Appendix 2-16 Chemical and Spectral Quantity Analysis of Ilmenite

No.	Hole No.	Depth (m)	Content															
			Al ₂ O ₃	SiO ₂	P ₂ O ₅	TiO ₂	Fe (primary)	Sc ₂ O ₃	Cr ₂ O ₃	V ₂ O ₅	Ta ₂ O ₅	Nb ₂ O ₃	FeO	Fe ₂ O ₃	ΣTR ₂ O ₃ + Y	MgO	MnO	
1	MJBK-18	25.0 - 28.5	0.61	1.57	0.016	49.23	45.95	0.00210	0.02	0.187	0.003	0.014	15.98	28.37	0.09	0.58	1.50	
2	MJBK-21	37.5 - 41.2	0.74	1.89	0.014	48.48	46.13	0.00211	0.027	0.205	0.003	0.010	23.71	20.05	0.11	0.58	1.04	
3	MJBK-22	37.8 - 42.8	0.92	2.24	0.020	49.99	44.72	0.00171	0.028	0.217	0.003	0.001	13.51	29.86	0.04	0.58	0.80	
4	MJBK-23	38.1 - 40.0	0.62	1.72	0.019	48.98	46.26	0.00139	0.02	0.185	0.003	0.010	16.53	28.08	0.06	0.59	1.07	
5	MJBK-24	40.8 - 42.1	0.58	1.93	0.020	51.00	44.76	0.00193	0.022	0.217	0.003	0.011	10.47	33.24	0.04	0.60	0.80	
6	MJBK-24	55.5 - 56.2	0.46	1.39	0.026	50.75	45.13	0.00159	0.045	0.21	0.003	0.010	19.40	23.79	0.04	0.62	1.29	
7	MJBK-26	38.0 - 40.5	1.1	2.03	0.011	50.79	43.85	0.00145	0.036	0.228	0.003	0.010	12.25	30.38	0.02	0.57	0.86	
8	MJBK-26	45.0 - 48.0	0.71	1.92	0.012	50.51	44.64	0.00202	0.031	0.208	0.003	0.012	24.86	17.29	0.07	0.59	1.28	
9	MJBK-27	39.0 - 44.5	0.91	2.11	0.015	50.50	44.31	0.00190	0.025	0.189	0.003	0.010	17.61	24.94	0.11	0.57	0.96	
10	MJBK-27	47.0 - 48.0	0.65	1.74	0.013	50.52	44.12	0.00158	0.028	0.208	0.004	0.001	26.30	15.19	0.11	0.54	2.07	
11	MJBK-28	43.5 - 48.5	0.62	1.66	0.012	50.24	45.06	0.00188	0.026	0.208	0.003	0.011	20.05	23.01	0.16	0.60	1.37	
12	MJBK-29	43.0 - 48.0	0.67	1.83	0.013	50.50	44.37	0.00150	0.029	0.203	0.003	0.011	15.09	27.77	0.17	0.55	0.81	
13	MJBK-30	40.5 - 43.5	0.77	2.09	0.021	49.99	45.30	0.00151	0.031	0.224	0.003	0.013	7.98	36.52	0.17	0.58	0.70	
14	MJBK-31	46.0 - 49.5	0.67	1.53	0.020	50.24	44.98	0.00101	0.028	0.212	0.003	0.011	23.57	19.05	0.05	0.53	1.60	
15	MJBK-32	53.0 - 58.0	0.6	1.74	0.011	51.25	43.95	0.00130	0.032	0.226	0.032	0.012	26.52	14.78	0.07	0.55	1.53	
16	MJBK-33	41.0 - 51.0	0.63	1.77	0.013	50.25	45.09	0.00197	0.035	0.222	0.003	0.010	18.75	24.47	0.14	0.59	1.24	
17	MJBK-34	42.0 - 45.4	0.88	2.22	0.025	51.15	44.23	0.00133	0.038	0.242	0.005	0.011	12.50	30.48	0.06	0.56	0.71	
18	MJBK-35	43.0 - 44.8	0.59	1.41	0.010	51.25	44.63	0.00061	0.034	0.233	0.003	0.010	13.44	29.85	0.02	0.55	1.02	
19	MJBK-36	41.0 - 50.3	0.61	2.01	0.014	50.26	44.60	0.00060	0.025	0.235	0.003	0.012	23.64	18.06	0.02	0.59	1.60	

**Appendix 2-17 Chemical and Spectral Quantity Analysis
of Zircon**

Appendix 2-17 Chemical and Spectral Quantity Analysis of Zircon

No.	Hole No.	Depth (m)	Content						
			Y	Sc ₂ O ₃	Hf	Th	ZrO ₂	TR ₂ O ₃	
1	MJBK-18	25.0 - 28.5	0.065	0.0127	0.52	<0,01	61.07	1.12	
2	MJBK-22	37.8 - 42.8	0.066	0.0118	0.54	<0,01	63.47	1.92	
3	MJBK-26	38.0 - 40.5	0.067	0.0133	0.64	<0,01	61.38	0.89	
4	MJBK-28	43.5 - 48.5	0.090	0.0122	0.65	<0,01	62.74	0.30	
5	MJBK-30	40.5 - 43.5	0.078	0.0109	0.57	<0,01	62.01	0.44	
6	MJBK-31	46.0 - 49.5	0.058	0.0106	0.49	<0,01	61.88	0.89	
7	MJBK-33	41.0 - 51.0	0.076	0.011	0.56	<0,01	60.74	2.03	
8	MJBK-34	42.0 - 45.4	0.050	0.0092	0.40	<0,01	66.55	1.06	
9	MJBK-35	43.0 - 44.8	0.050	0.0113	0.44	<0,01	66.72	0.32	
10	MJBK-36	41.0 - 50.3	0.065	0.0113	0.44	<0,01	63.64	1.04	

**Appendix 2-18 Determination of
Zircon Radioactivity**

Appendix 2-18 Determination of Zircon Radioactivity

No.	Hole No.	Depth (m)	Alpha integral		Beta integral	
			Becquerel/kg	±	Becquerel/kg	±
1	MJBK-18	25.0 - 28.5	586	205	350	120
2	MJBK-22	37.8 - 42.8	498	191	520	110
3	MJBK-26	38.0 - 40.5	351	273	520	110
4	MJBK-28	43.5 - 48.5	424	185	470	120
5	MJBK-30	40.5 - 43.5	676	225	560	140
6	MJBK-31	46.0 - 49.5	574	223	350	130
7	MJBK-33	41.0 - 51.0	576	201	360	150
8	MJBK-34	42.0 - 45.4	1013	312	790	140
9	MJBK-35	43.0 - 44.8	987	296	590	130
10	MJBK-36	41.0 - 50.3	791	203	650	120

**Appendix 2-19 Chemical Analysis of
Water Sample**

Appendix 2-19 Chemical Analysis of Water Samples

Sample No.	Spot of sampling (borehole No.)	Cation content											Sum of Mg-equivalent of cation		Hardness		
		Ca ⁺²		Mg ⁺²		Na ⁺		K ⁺		NH ⁴⁺		Fe total		SiO ₂	Aggravity CO ₂	Carbonate	Total
		Mg-l	Mg-equivalent	Mg-l	Mg-equivalent	Mg-l	Mg-equivalent	Mg-l	Mg-equivalent	Mg-l	Mg-equivalent	Mg-l	Mg-equivalent	Mg-l	Mg-l	Mg-l	Mg-equivalent
1	MJBKS-13	68.14	3.40	40.63	3.25	213.00	9.25	0.92	0.02	0.10	0.25	0.01	16.00		4.40	6.65	
1k	MJBKS-13	68.14	3.40	38.88	3.20	214.00	9.31	0.03	0.03	0.10	0.25	0.01	16.00		4.40	6.65	

Note: N/D - not detected

Appendix 2-19 Chemical Analysis of Water Samples

Sample No.	Spot of sampling (borehole No.)	Oxidability	Firm residue	PH	Anion content										Sum of Mg-equivalent of			
					CO _{2(g)}		CO ₃ ⁻²		NO ₂		NO ₃		HCO ₃		Cl ⁻		SO ₄ ⁻²	
					Mg-l	Mg-equivalent	Mg-l	Mg-equivalent	Mg-l	Mg-equivalent	Mg-l	Mg-equivalent	Mg-l	Mg-equivalent	Mg-l	Mg-equivalent	Mg-l	Mg-equivalent
1	MJBKS-13	0.96	1028	7.8	n/d		0.40	0.40	<0.01	<0.01	8.00	0.10	268.40	4.40	120.70	3.40	414.69	8.62
1k	MJBKS-13	0.96	1027	7.8	n/d		0.40	0.40	<0.01	<0.01	8.00	0.10	268.40	4.40	120.70	3.40	413.86	8.60

Note: N/D - not detected

**Appendix 2-20 Chemical Analysis of Water Sample According to
the State Standard (GOST) “Drinking Water”**

Appendix 2-20 Chemical Analysis of Water Sample According to
the State Standard (GOST) "Drinking Water"

No.	Component to be defined (dm ³)	Sample No. MJBKS-13	Remarks
1	Copper	0,0025 0,0025	
2	Lead	<0,025 <0,025	
3	Zinc	0,0050 0,0055	
4	Cadmium	0,002 0,002	
5	Lithium	0,02 0,02	
6	Arsenic	<0,01 <0,01	
7	Fluorine	1,03 1,00	
8	Molybdenum	0.005	
9	Selenium	0.0028	
10	Strontium	1,08 1,12	
11	Thallium	<0,0001 <0,0001	
12	Beryllium	<0,00005	
13	Vanadium	<0,02 <0,02	
14	Manganese	-	
15	Cobalt	0,0127 0,0135	
16	Mercury	<0,0003 <0,0003	
17	Titanium	0,034 0,03	
18	Boron	0,80 0,80	

Appendix 2-21 Physical Properties of Core Samples

Appendix 2-21 Physical Properties of Core Samples

No.	Drill Hole No.	Depth (m)	Fornation	RESISTVILITY (Ω m)	MAGNETIC SUSCEPTIBILITY ($\times 10^{-3}$ S.I.U.)	RADIOACTIVITY ($\times \mu$ SV/h)
1	MJBK-19	8.0	Aral F.	8.0	0.21	0.02
2	MJBK-19	9.0	Aral F.	12.7	0.21	0.07
3	MJBK-19	10.0	Aral F.	5.7	0.16	0.02
4	MJBK-19	11.0	Aral F.	6.0	0.19	0.03
5	MJBK-19	12.0	Aral F.	8.3	0.19	0.01
6	MJBK-19	13.0	Aral F.	4.3	0.19	0.40
7	MJBK-19	14.0	Aral F.	10.0	0.15	0.00
8	MJBK-19	15.0	Aral F.	6.7	0.20	0.02
9	MJBK-19	16.0	Aral F.	8.7	0.20	0.03
10	MJBK-19	17.0	Aral F.	6.7	0.18	0.04
11	MJBK-19	18.0	Aral F.	9.3	0.24	0.02
12	MJBK-19	19.0	Aral F.	9.3	0.15	0.08
13	MJBK-19	20.0	Aral F.	19.7	0.16	0.03
14	MJBK-19	21.0	Aral F.	11.7	0.16	0.04
15	MJBK-19	22.0	Aral F.	9.0	0.19	0.01
16	MJBK-19	23.0	Aral F.	9.7	0.11	0.05
17	MJBK-19	24.0	Aral F.	7.0	0.20	0.02
18	MJBK-19	25.0	Aral F.	6.3	0.17	0.03
19	MJBK-19	26.0	Aral F.	7.0	0.22	0.03
20	MJBK-19	27.0	Aral F.	7.3	0.20	0.01
21	MJBK-19	28.0	Aral F.	12.0	0.17	0.04
22	MJBK-19	29.0	Aral F.	27.0	0.22	0.02
23	MJBK-19	30.0	Aral F.	6.3	0.21	0.02
24	MJBK-19	31.0	Aral F.	8.7	0.24	0.01
25	MJBK-19	32.0	Aral F.	9.3	0.20	0.00
26	MJBK-19	33.0	Aral F.	9.7	0.22	0.03
27	MJBK-19	34.0	Aral F.	8.7	0.24	0.03
28	MJBK-19	35.0	Aral F.	6.0	0.22	0.02
29	MJBK-19	36.0	Aral F.	8.7	0.25	0.01
30	MJBK-19	37.0	Aral F.	8.7	0.24	0.03
31	MJBK-19	38.0	Aral F.	10.3	0.25	0.00
32	MJBK-19	39.0	Aral F.	8.0	0.26	0.00
33	MJBK-19	40.0	Aral F.	6.0	0.28	0.01
34	MJBK-19	41.0	Aral F.	5.3	0.30	0.02
35	MJBK-19	42.0	Aral F.	10.3	0.29	0.03
36	MJBK-19	43.0	Carboniferous	9.7	0.27	0.02
37	MJBK-19	44.0	Carboniferous	16.7	0.25	0.07
38	MJBKS-6	15.0	Carboniferous	51.0	0.15	0.02
39	MJBKS-6	16.0	Carboniferous	39.7	0.21	0.03
40	MJBKS-6	17.0	Carboniferous	52.0	0.16	0.02
41	MJBKS-6	18.0	Carboniferous	41.3	0.16	0.02
42	MJBKS-6	19.0	Carboniferous	28.7	0.17	0.03
43	MJBKS-6	20.0	Carboniferous	40.0	0.19	0.02
44	MJBKS-6	21.0	Carboniferous	32.0	0.13	0.02
45	MJBKS-6	22.0	Carboniferous	38.3	0.13	0.01
46	MJBKS-6	23.0	Carboniferous	27.3	0.21	0.03
47	MJBKS-6	24.0	Carboniferous	22.7	0.20	0.02
48	MJBKS-6	25.0	Carboniferous	22.3	0.22	0.01
49	MJBKS-6	26.0	Carboniferous	24.3	0.22	0.02
50	MJBKS-6	27.0	Carboniferous	24.7	0.25	0.02
51	MJBKS-6	28.0	Carboniferous	26.0	0.23	0.04
52	MJBKS-6	29.0	Carboniferous	29.7	0.15	0.01
53	MJBKS-6	30.0	Carboniferous	22.0	0.23	0.01
54	MJBKS-6	31.0	Carboniferous	21.0	0.23	0.02

Appendix 2-21 Physical Properties of Core Samples

No.	Drill Hole No.	Depth (m)	Formation	RESISTVILITY (Ωm)	MAGNETIC SUSCEPTIBILITY ($\times 10^{-3}$ S.I.U.)	RADIOACTIVITY ($\times \mu$ SV/h)
55	MJBKS-6	32.0	Carboniferous	25.3	0.24	0.03
56	MJBKS-6	33.0	Carboniferous	24.7	0.22	0.04
57	MJBKS-6	34.0	Carboniferous	24.0	0.21	0.03
58	MJBKS-6	35.0	Carboniferous	27.3	0.20	0.03
59	MJBKS-6	36.0	Carboniferous	26.7	0.23	0.03
60	MJBKS-6	37.0	Carboniferous	49.0	0.18	0.02
61	MJBKS-6	38.0	Carboniferous	101.3	0.14	0.04
62	MJBKS-6	39.0	Carboniferous	59.3	0.15	0.03
63	MJBKS-6	40.0	Carboniferous	75.7	0.19	0.03
64	MJBKN-2	3.0	Aral F.	35.3	0.12	-
65	MJBKN-2	4.0	Aral F.	40.0	0.11	-
66	MJBKN-2	5.0	Aral F.	56.7	0.16	-
67	MJBKN-2	6.0	Aral F.	22.7	0.13	-
68	MJBKN-2	7.0	Aral F.	21.7	0.17	-
69	MJBKN-2	8.0	Aral F.	19.3	0.20	-
70	MJBKN-2	9.0	Aral F.	33.7	0.16	-
71	MJBKN-2	10.0	Aral F.	30.7	0.16	-
72	MJBKN-2	11.0	Aral F.	22.7	0.15	-
73	MJBKN-2	12.0	Aral F.	19.0	0.17	-
74	MJBKN-2	13.0	Aral F.	13.3	0.16	-
75	MJBKN-2	14.0	Aral F.	20.3	0.11	-
76	MJBKN-2	15.0	Aral F.	17.7	0.12	-
77	MJBKN-2	16.0	Aral F.	17.3	0.12	-
78	MJBKN-2	17.0	Aral F.	34.3	0.10	-
79	MJBKN-2	18.0	Aral F.	20.7	0.13	-
80	MJBKN-2	19.0	Aral F.	21.0	0.12	-
81	MJBKN-2	20.0	Aral F.	18.7	0.14	-
82	MJBKN-2	21.0	Aral F.	21.0	0.12	-
83	MJBKN-2	22.0	Aral F.	26.7	0.12	-
84	MJBKN-2	23.0	Aral F.	20.3	0.21	-
85	MJBKN-2	24.0	Aral F.	18.0	0.17	-
86	MJBKN-2	25.0	Aral F.	20.7	0.12	-
87	MJBKN-2	26.0	Aral F.	20.0	0.10	-
88	MJBKN-2	27.0	Aral F.	17.0	0.12	-
89	MJBKN-2	28.0	Aral F.	17.3	0.11	-
90	MJBKN-2	29.0	Aral F.	22.3	0.16	-
91	MJBKN-2	30.0	Aral F.	21.0	0.13	-
92	MJBKN-2	31.0	Aral F.	20.0	0.12	-
93	MJBKN-2	32.0	Aral F.	21.0	0.12	-
94	MJBKN-2	33.0	Aral F.	23.7	0.13	-
95	MJBKN-2	34.0	Aral F.	21.3	0.13	-
96	MJBKN-2	35.0	Aral F.	23.3	0.14	-
97	MJBKN-2	36.0	Aral F.	19.0	0.14	-
98	MJBKN-2	37.0	Aral F.	17.0	0.16	-
99	MJBKN-2	38.0	Aral F.	22.0	0.21	-
100	MJBKN-2	39.0	Aral F.	36.7	0.12	-
101	MJBKN-2	40.0	Aral F.	37.7	0.13	-
102	MJBKN-2	41.0	Aral F.	64.7	0.15	-
103	MJBKN-2	42.0	Aral F.	23.7	0.14	-
104	MJBKN-2	43.0	Aral F.	35.0	0.18	-
105	MJBKN-2	44.0	Aral F.	60.3	0.11	-
106	MJBKN-2	45.0	Aral F.	25.0	0.16	-
107	MJBKN-2	46.0	Aral F.	45.3	0.15	-
108	MJBKN-2	47.0	Aral F.	36.7	0.12	-

Appendix 2-21 Physical Properties of Core Samples

No.	Drill Hole No.	Depth (m)	Fornation	RESISTVILITY (Ω m)	MAGNETIC SUSCEPTIBILITY ($\times 10^{-3}$ S.I.U.)	RADIOACTIVITY ($\times \mu$ SV/h)
109	MJBKN-2	48.0	Aral F.	38.3	0.18	-
110	MJBKN-2	49.0	Aral F.	67.7	0.13	-
111	MJBKN-2	50.0	Aral F.	195.7	0.20	-
112	MJBKN-2	51.0	Aral F.	49.7	0.15	-
113	MJBKN-2	52.0	Aral F.	46.3	0.15	-
114	MJBKN-2	53.0	Aral F.	37.3	0.12	-
115	MJBKN-2	54.0	Aral F.	52.3	0.14	-
116	MJBKN-2	55.0	Aral F.	81.0	0.15	-
117	MJBKN-2	56.0	Aral F.	86.3	0.12	-
118	MJBKN-2	57.0	Aral F.	82.0	0.11	-
119	MJBKN-2	58.0	Aral F.	74.3	0.13	-
120	MJBKN-2	59.0	Aral F.	96.0	0.13	-
121	MJBKN-2	60.0	Aral F.	72.0	0.17	-
122	MJBKN-2	61.0	Aral F.	169.3	0.06	-
123	MJBKN-2	62.0	Aral F.	263.3	0.26	-
124	MJBKN-2	63.0	Aral F.	227.0	0.09	-
125	MJBKN-2	64.0	Aral F.	599.3	0.27	-
126	MJBKN-2	65.0	Aral F.	200.7	0.05	-
127	MJBKN-2	66.0	Aral F.	340.7	0.33	-
128	MJBKN-2	67.0	Carboniferous	94.7	0.06	-
129	MJBKN-2	68.0	Carboniferous	85.0	0.07	-
130	MJBK-24	39.0	Aral F.	-	0.25	-
131	MJBK-24	40.0	Aral F.	-	0.33	-
132	MJBK-24	40.1	Aral F.	-	0.27	-
133	MJBK-24	40.2	Aral F.	-	0.30	-
134	MJBK-24	40.3	Aral F.	-	0.30	-
135	MJBK-24	40.4	Aral F.	-	0.27	-
136	MJBK-24	40.5	Aral F.	-	0.29	-
137	MJBK-24	40.6	Aral F.	-	0.21	-
138	MJBK-24	40.7	Aral F.	-	0.22	-
139	MJBK-24	40.8	Aral F.	-	0.26	-
140	MJBK-24	40.9	Aral F.	-	0.40	-
141	MJBK-24	41.0	Aral F.	-	0.28	-
142	MJBK-24	41.1	Aral F.	-	0.38	-
143	MJBK-24	41.2	Aral F.	-	0.29	-
144	MJBK-24	41.3	Aral F.	-	0.41	-
145	MJBK-24	41.4	Aral F.	-	0.35	-
146	MJBK-24	41.5	Aral F.	-	0.45	-
147	MJBK-24	41.6	Aral F.	-	0.42	-
148	MJBK-24	41.7	Aral F.	-	0.58	-
149	MJBK-24	41.8	Aral F.	-	0.55	-
150	MJBK-24	41.9	Aral F.	-	0.69	-
151	MJBK-24	42.0	Aral F.	-	0.70	-
152	MJBK-24	42.1	Aral F.	-	0.90	-
153	MJBK-24	42.2	Aral F.	-	0.25	-
154	MJBK-24	42.3	Aral F.	-	0.24	-
155	MJBK-24	42.4	Aral F.	-	0.24	-
156	MJBK-24	42.5	Aral F.	-	0.24	-
157	MJBK-24	42.6	Aral F.	-	0.23	-
158	MJBK-24	42.7	Aral F.	-	0.23	-
159	MJBK-24	42.8	Aral F.	-	0.23	-
160	MJBK-24	42.9	Aral F.	-	0.24	-
161	MJBK-24	43.0	Aral F.	-	0.23	-
162	MJBK-24	44.0	Aral F.	-	0.25	-

Appendix 2-22 Field Measurements of Physical Properties

Appendix2-22 Field Measurements of Physical Properties

No.	POINT No.	NORTH CORDINATION			EAST CORDINATION			MAGNETIC SUCEPTIBILITY ($\times 10^{-3}$ S.I.U.)	RADIATION ACTIVITY (μ Sv/h)	FIELD ROCK NAME
		'	'	"	'	'	"			
1	G001	48	53	17	82	51	20	0.25	0.02	GRANITOID
2	G002	48	53	18	82	51	9	3.01	0.05	GRANITOID
3	G003	48	53	19	82	51	1	2.63		GRANITOID
4	G004	48	53	24	82	51	2	0.46	0.02	GRANITOID
5	G005	48	53	28	82	51	5	3.60		GRANITOID
6	G006	48	53	32	82	51	10	0.94	0.03	GRANITOID
7	G007	48	53	41	82	51	9	0.52		GRANITOID
8	G008	48	53	48	82	51	9	1.15	0.02	GRANITOID
9	G009	48	53	54	82	51	5	1.81	0.04	GRANITOID
10	G010	48	53	36	82	51	24	1.07	0.06	GRANITOID
11	G011	48	52	57	82	51	9	0.95		GRANITOID
12	G012	48	53	4	82	51	5	1.62		GRANITOID
13	G013	48	52	43	82	51	11	4.10		GRANITOID
14	G014	48	54	16	82	46	49	2.12	0.05	GRANITOID
15	G100	48	50	5	82	52	11	3.46		GRANITOID
16	G101	48	50	5	82	51	58	0.14		GRANITOID
17	G102	48	50	4	82	51	48	4.30		GRANITOID
18	G103A	48	50	2	82	51	40	0.70		GRANITOID
19	G103B	48	50	2	82	51	40	2.38		GRANITOID
20	G104	48	49	56	82	51	27	2.47		GRANITOID
21	G105	48	49	54	82	51	17	0.35		GRANITOID
22	G106	48	49	53	82	51	8	0.12		GRANITOID
23	G107	48	49	59	82	50	59	2.57		GRANITOID
24	G108	48	51	30	82	50	57	0.24		GRANITOID
25	G109	48	51	35	82	51	3	6.32	0.03	GABBRO
26	G110	48	51	38	82	51	1	3.76	0.04	GRANITOID
27	G111	48	51	40	82	51	2	1.35	0.02	GRANITOID
28	G112	48	51	44	82	51	4	0.17	0.09	GRANITOID
29	G113	48	51	46	82	50	59	0.40	0.02	GABBRO
30	G114	48	51	48	82	50	59	0.21		GRANITOID
31	G115	48	51	51	82	50	59	0.48	0.05	GRANITOID
32	G116	48	51	55	82	50	57	0.14	0.04	GRANITOID
33	G117	48	52	2	82	50	56	0.16		GRANITOID
34	G118	48	52	9	82	50	53	1.28	0.04	GABBRO
35	G119	48	52	15	82	50	58	0.14		GRANITOID
36	G120	48	52	23	82	51	6	7.84		GRANITOID
37	G121	48	52	44	82	51	28	4.86		GRANITOID
38	G122	48	51	57	82	48	28	2.90		GRANITOID
39	G123	48	52	0	82	48	35	2.35		GRANITOID
40	G124	48	52	6	82	48	46	1.98		GRANITOID
41	G125	48	52	12	82	49	4	0.18		GRANITOID
42	G126	48	52	24	82	49	3	4.57		GRANITOID
43	G127	48	52	30	82	49	3	0.71		GABBRO
44	G128	48	52	32	82	49	1	0.17		GRANITOID
45	G129	48	52	40	82	49	11	0.08		GRANITOID
46	G130	48	52	54	82	49	7	8.37		GRANITOID
47	G131	48	52	58	82	48	56	1.02		GRANITOID
48	G132	48	53	4	82	48	50	2.29		GABBRO
49	G133	48	53	4	82	48	38	2.44		GRANITOID
50	G134	48	53	4	82	48	23	4.17		GRANITOID
51	G135	48	53	1	82	48	16	0.27		GABBRO
52	G136	48	52	54	82	48	14	0.59		GRANITOID
53	G137	48	52	44	82	48	19	4.09		GRANITOID
54	G138	48	52	39	82	48	24	2.97		GRANITOID
55	G139	48	52	32	82	48	24	0.54		GRANITOID

Appendix2-22 Field Measurements of Physical Properties

No.	POINT No.	NORTH CORDINATION			EAST CORDINATION			MAGNETIC SUCEPTIBILITY ($\times 10^{-3}$ S.I.U.)	RADIATION ACTIVITY (μ Sv/h)	FIELD ROCK NAME
		'	'	"	'	'	"			
56	G140	48	52	26	82	48	33	2.32		GRANITOID
57	G141	48	52	16	82	48	30	0.93		GRANITOID
58	G142A	48	51	43	82	49	37	3.39		GRANITOID
59	G142B	48	51	43	82	49	37	0.12		GRANITOID
60	G143	48	51	45	82	49	33	0.41		GRANITOID
61	G144	48	51	49	82	49	33	1.36		GRANITOID
62	G145	48	51	50	82	49	34	0.38		GRANITOID
63	G146	48	51	56	82	49	35	1.23		GRANITOID
64	G147	48	51	58	82	49	38	3.81		GRANITOID
65	G148	48	52	2	82	49	41	0.78		GABBRO
66	G149	48	52	4	82	49	45	1.79		GRANITOID
67	G150	48	52	8	82	49	48	0.12		GRANITOID
68	G151A	48	52	15	82	49	49	0.57		GRANITOID
69	G151B	48	52	15	82	49	49	13.79		GRANITOID
70	G152	48	52	23	82	49	44	0.73		GRANITOID
71	G153	48	52	28	82	49	47	0.59		GRANITOID
72	G154	48	52	29	82	49	49	2.34		GRANITOID
73	G155	48	52	31	82	49	57	2.29		GRANITOID
74	G156	48	52	27	82	49	55	3.84		GRANITOID
75	G157	48	52	24	82	50	5	3.21		GRANITOID
76	G158	48	52	21	82	50	12	1.96		GRANITOID
77	G159	48	52	13	82	50	18	0.07		GRANITOID
78	G160	48	52	8	82	50	21	6.03		GRANITOID
79	G161	48	52	5	82	50	21	6.23		GRANITOID
80	G162	48	51	53	82	49	59	0.07		GRANITOID
81	G163	48	51	31	82	50	45	10.19		GRANITOID
82	G164	48	51	31	82	50	41	0.22		GRANITOID
83	G165	48	51	30	82	50	39	0.43		GRANITOID
84	G166	48	51	26	82	50	38	0.43		GRANITOID
85	G167	48	50	53	82	50	9	0.90		GRANITOID
86	G168	48	50	52	82	50	5	4.09		GRANITOID
87	G169	48	50	49	82	50	0	2.54		GRANITOID
88	G170	48	50	38	82	50	2	5.15		GRANITOID
89	G171	48	50	34	82	49	58	5.85		GRANITOID
90	G172	48	50	13	82	53	1	0.42	0.02	GRANITOID
91	G173	48	50	7	82	53	8	3.51	0.04	GRANITOID
92	G174	48	50	9	82	53	18	2.46	0.04	GRANITOID
93	G175	48	50	9	82	53	24	4.44	0.01	GRANITOID
94	G176	48	50	6	82	53	23	3.06	0.03	GRANITOID
95	G177	48	50	4	82	53	18	1.21	0.04	GRANITOID
96	G178	48	50	0	82	53	13	2.97	0.05	GRANITOID
97	G179	48	49	56	82	53	16	0.33	0.01	GRANITOID
98	G180	48	49	52	82	53	17	0.75	0.02	GRANITOID
99	G181	48	49	49	82	53	17	0.15	0.06	GRANITOID
100	G182	48	49	47	82	53	12	0.07	0.02	GRANITOID
101	G183	48	49	49	82	53	4	0.15	0.02	GRANITOID
102	G184	48	49	51	82	52	55	0.19	0.03	GRANITOID
103	G185	48	49	54	82	52	46	0.24	0.07	GRANITOID
104	G186	48	49	49	82	52	42	0.21		GRANITOID
105	G187	48	49	44	82	52	28	7.77		GRANITOID
106	G188	48	49	44	82	52	32	0.39		GRANITOID
107	G189	48	49	46	82	52	32	0.27		GRANITOID
108	G190	48	52	52	82	53	53	0.28		GRANITOID
109	G191	48	52	51	82	53	58	0.24		GRANITOID
110	G192	48	52	50	82	54	9	0.21	0.01	GRANITOID

Appendix2-22 Field Measurements of Physical Properties

No.	POINT No.	NORTH CORDINATION			EAST CORDINATION			MAGNETIC SUCCEPTIBILITY ($\times 10^{-3}$ S.I.U.)	RADIATION ACTIVITY (μ Sv/h)	FIELD ROCK NAME
		'	'	"	'	'	"			
111	G193	48	52	46	82	54	14	0.36	0.03	GRANITOID
112	G194	48	52	40	82	54	19	0.28	0.04	GRANITOID
113	G195	48	52	34	82	54	20	0.21	0.06	GRANITOID
114	G196	48	52	28	82	54	20	0.18	0.06	GRANITOID
115	G197	48	52	20	82	54	13	0.18	0.02	GRANITOID
116	G198	48	52	22	82	53	58	0.17	0.04	GRANITOID
117	G199	48	52	36	82	53	55	0.18	0.04	GRANITOID
118	G200	48	52	46	82	53	48	0.22	0.04	GRANITOID
119	G201	48	52	57	82	52	37	0.06	0.06	GRANITOID
120	G202	48	52	54	82	52	14	0.89	0.04	GRANITOID
121	G203	48	52	53	82	52	1	0.16	0.03	GRANITOID
122	G204	48	52	55	82	51	45	0.22	0.04	GRANITOID
123	G205	48	52	22	82	50	49	5.97	0.04	GRANITOID
124	G206	48	52	18	82	50	40	1.24	0.04	GRANITOID
125	G207	48	52	9	82	50	40	2.74	0.04	GRANITOID
126	G208	48	52	27	82	49	39	0.75	0.02	GABBRO
127	G209	48	52	41	82	49	46	1.30		GRANITOID
128	G210	48	52	51	82	49	53	1.70		GRANITOID
129	G211	48	53	4	82	51	21	4.12	0.03	GRANITOID
130	G212	48	53	2	82	50	50	3.17	0.03	GRANITOID
131	G213	48	52	54	82	50	47	0.77	0.03	GRANITOID
132	G214	48	52	51	82	50	21	4.64	0.06	GRANITOID
133	G215	48	52	46	82	50	37	2.63		GRANITOID
134	G216	48	52	46	82	50	48	1.81		GRANITOID
135	G217	48	52	39	82	50	49	2.62		GRANITOID
136	G218	48	52	32	82	50	44	1.64		GRANITOID
137	G219	48	52	25	82	50	48	0.19		GRANITOID
138	G220	48	52	30	82	50	40	1.43		GRANITOID
139	G221	48	54	33	82	49	56	1.91		GRANITOID
140	G222	48	54	31	82	49	51	2.65		GRANITOID
141	G223	48	54	30	82	49	42	2.41		GRANITOID
142	G224	48	54	24	82	49	34	1.56		GRANITOID
143	G225	48	54	23	82	49	23	1.58		GRANITOID
144	G226	48	54	17	82	49	17	0.88		GRANITOID
145	G227	48	54	13	82	49	16	1.72		GRANITOID
146	G228	48	54	7	82	49	21	1.42		GRANITOID
147	G229	48	53	59	82	49	11	0.66		GRANITOID
148	G230	48	53	51	82	49	12	0.42		GRANITOID
149	G231	48	53	55	82	49	4	4.11		GRANITOID
150	G232	48	53	52	82	48	58	1.28		GRANITOID
151	G233	48	45	6	82	56	15	0.40		AGROMERATE
152	G234	48	45	0	82	56	19	0.39		AGROMERATE
153	G235	48	49	9	82	56	21	25.52		AGROMERATE
154	G236	48	45	11	82	56	35	17.90		AGROMERATE
155	G237	48	46	12	82	56	37	10.80		AGROMERATE
156	G238	48	45	54	82	56	41	3.77		AGROMERATE
157	G239	48	45	57	82	56	49	0.41		AGROMERATE
158	G240	48	45	58	82	56	54	19.13		AGROMERATE
159	G241	48	45	59	82	57	6	0.67		AGROMERATE
160	G242	48	45	53	82	57	28	0.26		AGROMERATE
161	G243	48	45	46	82	57	39	0.44		GRANITOID
162	G244	48	45	37	82	57	52	0.43		GRANITOID
163	G245	48	45	29	82	58	2	4.13		GRANITOID
164	G246	48	45	23	82	58	11	3.36		GRANITOID
165	G247	48	54	10	82	50	21	0.63		GRANITOID

Appendix2-22 Field Measurements of Physical Properties

No.	POINT No.	NORTH CORDINATION			EAST CORDINATION			MAGNETIC SUCCEPTIBILITY ($\times 10^{-3}$ S.I.U.)	RADIATION ACTIVITY (μ Sv/h)	FIELD ROCK NAME
		°	'	''	°	'	''			
166	G248	48	54	15	82	50	18	2.19		GRANITOID
167	G249	48	54	23	82	50	20	2.22		GRANITOID
168	G250	48	54	27	82	50	22	2.45		GRANITOID
169	G251	48	54	26	82	50	12	3.43		GRANITOID
170	G252	48	54	23	82	49	59	1.98		GRANITOID
171	G253	48	54	11	82	50	1	1.83		GRANITOID
172	G254	48	54	7	82	50	7	1.79		GRANITOID
173	G255	48	54	21	82	51	10	0.14		GRANITOID
174	G256	48	54	18	82	51	40	0.97		GRANITOID
175	G257	48	51	34	82	50	55	3.51		GRANITOID
176	G258	48	51	33	82	50	43	6.84		GRANITOID
177	G259	48	51	34	82	50	33	0.10		GRANITOID
178	G260	48	51	34	82	50	27	4.61		GRANITOID
179	G261	48	51	55	82	49	11	2.39		GRANITOID
180	G262	48	51	54	82	49	2	5.31		GRANITOID
181	G263	48	51	54	82	48	52	2.58		GRANITOID
182	G264	48	51	47	82	48	47	1.30		GRANITOID
183	G265	48	51	41	82	48	43	1.06		GRANITOID
184	G266	48	51	44	82	48	55	0.67		GRANITOID
185	G267	48	51	45	82	49	3	0.28		GRANITOID
186	G268	48	53	27	82	48	24	1.40		GRANITOID
187	G269	48	53	30	82	48	28	3.33		GRANITOID
188	G270	48	53	31	82	48	24	1.87		GRANITOID
189	G271	48	53	28	82	48	14	3.77		GRANITOID
190	G272	48	54	8	82	47	29	3.56		GRANITOID
191	G273	48	54	8	82	47	14	0.75		GRANITOID
192	G274	48	53	58	82	46	53	0.37		GRANITOID
193	G275	48	53	56	82	46	39	0.22		GRANITOID
194	G276	48	54	7	82	46	39	0.42		GRANITOID
195	G277	48	54	11	82	47	18	3.90		GRANITOID
196	G278	48	54	20	82	47	43	3.67		GRANITOID
197	G279	48	54	28	82	47	53	2.42		GRANITOID
198	G280	48	54	44	82	48	0	2.65		GRANITOID
199	G281	48	54	44	82	48	22	2.52		GRANITOID
200	G282	48	54	47	82	48	37	4.18		GRANITOID
201	G283	48	54	48	82	48	58	4.22		GRANITOID
202	G284	48	54	49	82	48	21	4.47		GRANITOID
203	G285A	48	54	21	82	46	30	0.18		GRANITOID
204	G285B	48	54	21	82	46	30	0.35		GRANITOID
205	G286	48	53	51	82	47	0	3.40		GRANITOID
206	G287	48	53	46	82	46	56	0.89		GRANITOID
207	G288	48	46	38	82	51	4	0.64		AGROMERATE
208	G289	48	46	38	82	51	11	0.44		AGROMERATE
209	G290	48	46	35	82	51	15	0.11		GRANITOID
210	G291	48	46	34	82	51	15	1.05		AGROMERATE
211	G292	48	45	29	82	54	44	0.21		GRANITOID
212	G293	48	45	30	82	54	40	0.28		GRANITOID
213	G294	48	49	10	82	52	12	0.10		GRANITOID
214	G295	48	50	22	82	53	17	0.22		GRANITOID
215	G296	48	50	24	82	53	22	1.64		GRANITOID
216	G297	48	50	26	82	53	29	0.11		GRANITOID
217	G298	48	49	24	83	3	13	0.32		AGROMERATE
218	G299	48	49	24	83	3	12	1.36		GRANITOID
219	G300	48	49	24	83	3	5	3.02		GRANITOID
220	G301	48	49	23	83	2	58	0.35		SS

Appendix2-22 Field Measurements of Physical Properties

No.	POINT No.	NORTH CORDINATION			EAST CORDINATION			MAGNETIC SUCEPTIBILITY ($\times 10^{-3}$ S.I.U.)	RADIATION ACTIVITY (μ Sv/h)	FIELD ROCK NAME
		°	'	"	°	'	"			
221	G302	48	49	19	83	2	44	0.37		SS
222	G303	48	49	11	83	2	37	0.33		AGROMERATE
223	G304	48	49	11	83	2	22	0.36		AGROMERATE
224	G305	48	49	9	83	2	30	0.34		SS
225	G306	48	49	21	83	3	9	0.33		SS
226	G307	48	49	36	83	1	18	0.40		SS
227	G308	48	46	52	83	0	42	0.62		AGROMERATE
228	G309	48	48	46	82	49	40	0.32		AGROMERATE
229	G310	48	48	23	82	52	5	4.33		GRANITOID
230	G311	48	48	30	82	54	23	0.18		GRANITOID
231	G312	48	48	10	82	54	6	0.28		GRANITOID
232	G313	48	48	17	82	54	3	0.22		GRANITOID
233	G314	48	48	17	82	53	52	0.08		GRANITOID
234	G315	48	48	17	82	53	43	0.12		GRANITOID
235	G316	48	48	20	82	53	42	0.26		GRANITOID
236	G317	48	48	41	82	55	29	0.27		GRANITOID
237	G318	48	48	35	82	55	28	0.58		GRANITOID
238	G319	48	48	38	82	55	26	0.32		GRANITOID
239	G320	48	49	24	82	57	19	0.04		GRANITOID
240	G321	48	49	25	82	57	22	15.40		AGROMERATE
241	G322	48	49	27	82	57	26	9.47		AGROMERATE
242	G323	48	49	31	82	57	29	12.10		AGROMERATE
243	G324	48	49	34	82	57	31	2.78		AGROMERATE
244	G325	48	49	35	82	57	23	4.44		AGROMERATE
245	G326	48	49	32	82	57	21	3.21		AGROMERATE
246	G327	48	49	35	82	57	20	0.12		GRANITOID
247	G328	48	49	35	82	55	24	0.16		GRANITOID
248	G329	48	49	54	82	55	39	0.07		GRANITOID
249	G330	48	49	55	82	55	48	0.11		GRANITOID
250	G331	48	49	55	82	55	52	0.61		AGROMERATE
251	G332	48	49	59	82	55	54	1.52		AGROMERATE
252	G333	48	50	1	82	55	52	0.52		GRANITOID
253	G334	48	50	2	82	55	46	0.19		GRANITOID
254	G335	48	50	40	82	47	7	2.90		GRANITOID
255	G336	48	49	13	82	47	10	0.08		GRANITOID
256	G337	48	49	12	82	57	20	2.05		AGROMERATE
257	G338	48	48	42	82	58	7	18.00		AGROMERATE
258	G339	48	45	0	82	56	19	0.41		GRANITOID
259	G340	48	45	2	82	58	47	28.60		GRANITOID
260	G341	48	45	58	82	58	44	0.02		GRANITOID
261	G342	48	47	58	83	0	11	0.28		AGROMERATE
262	G343	48	47	58	83	0	17	0.74		AGROMERATE
263	G344	48	47	49	82	59	56	3.27		AGROMERATE
264	G345	48	47	50	82	59	54	23.40		AGROMERATE
265	G346	48	47	43	82	59	54	5.04		AGROMERATE
266	G347	48	47	41	83	0	2	6.28		AGROMERATE
267	G348	48	47	12	83	1	8	0.31		AGROMERATE
268	G349	48	47	6	83	1	19	0.39		GRANITOID
269	G350	48	46	12	83	2	18	0.08		GRANITOID
270	G351	48	45	52	83	2	11	0.35		AGROMERATE
271	G352	48	43	47	83	0	10	0.33		GRANITOID
272	GO15	48	54	18	82	46	48	2.48	0.03	GRANITOID
273	GO16	48	54	22	82	46	49	2.51	0.03	GRANITOID
274	GO17	48	54	26	82	46	56	1.69	0.01	GRANITOID
275	GO18	48	54	28	82	47	6	2.97	0.02	GRANITOID

Appendix2-22 Field Measurements of Physical Properties

No.	POINT No.	NORTH CORDINATION			EAST CORDINATION			MAGNETIC SUCEPTIBILITY ($\times 10^{-3}$ S.I.U.)	RADIATION ACTIVITY (μ Sv/h)	FIELD ROCK NAME
		°	'	"	°	'	"			
276	GO19	48	54	30	82	47	11	3.85	0.02	GRANITOID
277	GO20	48	54	29	82	47	15	3.34	0.08	GRANITOID
278	GO21	48	54	30	82	47	25	3.24	0.02	GRANITOID
279	GO22	48	54	34	82	47	26	3.20	0.03	GRANITOID
280	GO23	48	54	41	82	47	36	3.27	0.01	GRANITOID
281	GO24	48	54	35	82	47	41	1.41	0.03	GRANITOID
282	GO25	48	54	41	82	47	33	3.39	0.02	GRANITOID
283	GO26	48	54	42	82	47	25	6.02	0.02	GRANITOID
284	GO27	48	54	36	82	46	49	0.59	0.05	GRANITOID
285	GO28	48	54	21	82	46	37	0.42	0.03	GRANITOID
286	GO29	48	47	1	82	50	34	2.36	0.04	AGROMERATE
287	GO30	48	46	50	82	50	56	0.43	0.01	AGROMERATE
288	GO31	48	47	3	82	50	52	35.50	0.02	AGROMERATE
289	GO32	48	47	6	82	50	56	34.60		AGROMERATE
290	GO33	48	47	3	82	51	25	4.79	0.02	GRANITOID
291	GO34	48	47	2	82	51	30	4.67	0.03	GRANITOID
292	GO35	48	47	2	82	51	41	2.32		GRANITOID
293	GO36	48	46	52	82	51	57	0.32	0.07	GRANITOID
294	GO37	48	46	46	82	52	37	0.47	0.06	GRANITOID
295	GO38	48	46	42	82	52	45	0.53	0.07	GRANITOID
296	GO39	48	46	35	82	53	1	0.75	0.03	GRANITOID
297	GO40	48	46	27	82	53	1	6.22		AGROMERATE
298	GO41	48	46	22	82	53	35	25.90	0.02	AGROMERATE
299	GO42	48	46	25	82	53	41	0.08	0.06	GRANITOID
300	GO43	48	46	20	82	54	0	0.10	0.05	GRANITOID
301	GO44	48	46	31	82	54	31	0.17	0.03	QP
302	GO45	48	46	28	82	54	48	0.31	0.05	MAS.SILICI.ROCK
303	GO46	48	46	27	82	54	38	0.24		QP
304	GO47	48	46	27	82	54	30	0.15		QP
305	GO48	48	48	23	82	54	46	0.15	0.08	GRANITOID
306	GO49	48	48	23	82	54	49	0.18	0.02	GRANITOID
307	GO50	48	48	23	82	54	53	0.39	0.02	GRANITOID
308	GO51	48	48	29	82	53	4	0.30	0.02	GRANITOID
309	GO52	48	48	35	82	55	12	0.24	0.02	GRANITOID
310	GO53	48	48	38	82	53	11	0.20		GRANITOID
311	GO54	48	48	46	82	55	15	0.45		GRANITOID
312	GO55	48	48	40	82	50	1	0.32	0.02	GRANITOID
313	GO58	48	48	40	82	50	4	0.36		SS
314	GO59	48	48	36	82	50	11	0.41		GABBRO
315	GO60	48	48	32	82	50	17	0.31	0.01	GABBRO
316	GO61	48	48	27	82	50	20	0.54	0.03	GABBRO
317	GO62	48	48	26	82	50	23	0.23		SS
318	GO64	48	48	12	82	50	18	0.06	0.08	GABBRO
319	GO65	48	49	6	82	49	32	15.20	0.04	GRANITOID
320	GO66	48	49	10	82	49	30	11.00		GRANITOID
321	GO67	48	49	14	82	49	28	16.40		GRANITOID
322	GO68	48	49	11	82	49	35	0.57		GRANITOID
323	GO69	48	49	39	82	50	6	0.67	0.04	GRANITOID
324	GO70	48	50	15	82	49	25	0.36	0.02	GRANITOID
325	GO71	48	50	21	82	49	23	0.36		GRANITOID
326	GO72	48	50	51	82	48	54	0.36		GRANITOID
327	GO73	48	51	10	82	48	46	1.12		GRANITOID
328	GO74	48	51	15	82	48	48	3.38		GRANITOID
329	GO75	48	51	17	82	48	45	6.12	0.01	GRANITOID
330	GO76	48	51	21	82	48	47	0.72		GRANITOID

Appendix2-22 Field Measurements of Physical Properties

No.	POINT No.	NORTH CORDINATION			EAST CORDINATION			MAGNETIC SUCEPTIBILITY (X10 ⁻³ S.I.U.)	RADIATIN ACTIVITY (μ Sv/h)	FIELD ROCK NAME
		°	'	"	°	'	"			
331	GO77	48	50	58	82	51	8	6.81	0.02	GABBRO
332	GO78	48	50	57	82	51	9	0.09	0.06	GRANITOID
333	GO79	48	50	26	82	52	56	0.73	0.05	GRANITOID
334	GO80	48	50	22	82	52	50	0.99		GRANITOID
335	GO81	48	50	15	82	52	42	1.32		GRANITOID
336	GO82	48	50	12	82	52	33	0.16	0.04	GRANITOID
337	GO83	48	50	11	82	52	21	2.04		GRANITOID
338	GO84	48	50	13	82	52	15	0.64		GRANITOID
339	GO85	48	50	14	82	52	6	5.29	0.01	GRANITOID
340	GO86	48	50	14	82	52	1	2.84	0.04	GRANITOID
341	GO87	48	50	14	82	51	58	3.66		GRANITOID
342	GO88	48	50	12	82	51	47	4.23		GRANITOID
343	GO89	48	50	10	82	51	38	3.78		GRANITOID
344	GO90	48	50	9	82	51	20	3.83		GRANITOID
345	GO91	48	50	5	82	51	9	4.83		GRANITOID
346	GO92	48	50	7	82	51	0	0.19		GRANITOID
347	GO93	48	48	20	82	51	48	0.23		GRANITOID
348	GO94	48	50	3	82	52	43	3.09		GRANITOID
349	GO95	48	50	50	82	52	38	1.49		GRANITOID
350	GO96	48	49	58	82	52	37	3.57		GRANITOID
351	GO97	48	49	57	82	52	30	2.26		GRANITOID
352	GO98	48	49	58	82	52	22	2.79		GRANITOID
353	GO99	48	50	1	82	52	12	0.96		GRANITOID
354	I001	48	51	38	82	49	36	0.60		GRANITOID
355	I002	48	51	56	82	48	23	3.42		GRANITOID
356	I003	48	52	19	82	47	41	1.81		GRANITOID
357	I004	48	49	53	82	56	2	59.30		AGROMERATE
358	I005	48	51	5	82	54	18	3.83	0.02	GRANITOID
359	I006A	48	50	55	82	53	50	21.50	0.06	GRANITOID
360	I006B	48	50	55	82	53	50	7.08	0.03	GRANITOID
361	I007	48	51	0	82	53	34	8.63	0.03	GRANITOID
362	I008	48	53	23	82	51	37	0.21		GRANITOID
363	I009	48	53	21	82	51	40	0.16		GRANITOID
364	I010	48	53	15	82	51	50	0.20		GRANITOID
365	I011	48	53	7	82	51	47	0.66		GRANITOID
366	I012	48	53	3	82	51	59	0.10		GRANITOID
367	I013	48	53	19	82	52	5	2.78		GRANITOID
368	I014	48	53	20	82	52	9	1.75		GRANITOID
369	I015	48	53	23	82	52	7	0.39		GRANITOID
370	I016	48	53	24	82	51	58	0.41		GRANITOID
371	I017	48	53	5	82	31	31	1.71		GRANITOID
372	I018	48	52	55	82	51	30	2.72		GRANITOID
373	I019A	48	52	48	82	51	42	5.27		GRANITOID
374	I019B	48	52	48	82	51	42	3.27		GRANITOID
375	I020	48	52	45	82	51	28	4.62		GRANITOID
376	I021	48	52	45	82	51	18	3.00		GRANITOID
377	I022	48	48	49	82	58	6	0.06	0.08	GRANITOID
378	I023	48	44	29	82	59	24	5.90		GRANITOID
379	I024A	48	54	13	82	46	41	0.18		GRANITOID
380	I024B	48	54	8	82	46	52	0.36		GRANITOID
381	I025	48	54	0	82	47	0	0.23		GRANITOID
382	I026	48	53	20	82	47	31	16.28		GRANITOID
383	I027	48	53	14	82	47	37	14.60		GRANITOID
384	I028	48	53	13	82	47	30	1.03		GRANITOID
385	I029	48	53	2	82	47	25	2.95		GRANITOID

Appendix2-22 Field Measurements of Physical Properties

No.	POINT No.	NORTH CORDINATION			EAST CORDINATION			MAGNETIC SUCCEPTIBILITY ($\times 10^{-3}$ S.I.U.)	RADIATION ACTIVITY (μ Sv/h)	FIELD ROCK NAME
		'	"	'''	'	"	'''			
386	I030	48	53	0	82	47	20	8.93		GRANITOID
387	I031	48	53	3	82	45	15	2.98		GRANITOID
388	I032	48	53	0	82	47	9	4.88		GRANITOID
389	I033	48	48	41	82	49	58	0.32		SS
390	I034	48	48	43	82	50	12	0.33		GRANITOID
391	I035	48	48	37	82	50	28	0.38		GRANITOID
392	I036	48	48	35	82	50	31	0.21		SS
393	I037	48	48	36	82	50	37	0.38		SS
394	I038	48	48	50	82	49	39	0.33		GRANITOID
395	I039	48	49	1	82	49	39	11.70		GRANITOID
396	I040	48	48	57	82	49	37	0.27		GRANITOID
397	I041	48	49	40	82	49	59	0.38		GRANITOID
398	I042	48	49	40	82	49	51	2.30		GRANITOID
399	I043	48	50	12	82	49	28	0.26		GRANITOID
400	I044	48	50	47	82	49	1	0.42		GRANITOID
401	I045	48	51	5	82	48	52	1.24		GRANITOID
402	I046	48	51	5	82	48	53	0.92		GRANITOID
403	I047	48	51	11	82	48	53	3.01		GRANITOID
404	I048	48	51	18	82	48	51	0.71		GRANITOID
405	I049	48	51	20	82	48	53	11.53		GRANITOID
406	I050	48	51	24	82	48	58	2.64		GRANITOID
407	I051	48	51	23	82	49	3	1.76		GRANITOID
408	I052	48	51	21	82	49	12	0.96		GRANITOID
409	I053	48	51	17	82	49	22	1.31		GRANITOID
410	I054	48	51	8	82	49	35	2.49		GRANITOID
411	I055	48	51	9	82	49	41	1.75		GRANITOID
412	I056	48	51	8	82	49	48	1.90		GRANITOID
413	I057	48	51	9	82	49	53	4.57		GRANITOID
414	I058	48	51	12	82	50	2	2.21		GRANITOID
415	I059	48	51	7	82	49	54	3.86		GRANITOID
416	I060	48	51	1	82	49	51	1.85		GRANITOID
417	I061	48	50	55	82	49	54	4.81		GRANITOID
418	I062	48	50	50	82	49	51	4.10		GRANITOID
419	I063	48	50	45	82	49	58	0.24		GRANITOID
420	I064	48	50	38	82	49	38	1.40		GRANITOID
421	I066	48	49	58	82	52	41	0.88	0.04	GRANITOID
422	I067	48	49	55	82	52	37	1.13	0.02	GRANITOID
423	I068	48	49	53	82	52	28	0.34	0.03	GRANITOID
424	I069	48	49	52	82	52	18	0.30	0.08	GRANITOID
425	I070	48	40	56	82	52	10	0.38	0.07	GRANITOID
426	I071	48	49	55	82	51	59	0.20	0.03	GRANITOID
427	I072	48	50	2	82	51	54	3.32	0.03	GRANITOID
428	I073	48	50	3	82	51	43	3.54	0.02	GRANITOID
429	I074	48	49	59	82	51	35	2.22	0.04	GRANITOID
430	I075	48	50	5	82	51	21	3.19	0.03	GRANITOID
431	I076	48	49	58	82	51	13	3.03	0.01	GRANITOID
432	I077	48	49	80	82	51	7	0.43		GRANITOID
433	I078	48	50	12	82	50	53	1.12		GRANITOID
434	I079	48	50	20	82	51	5	0.14		GRANITOID
435	I080	48	50	30	82	51	28	0.36		GRANITOID
436	I081	48	50	35	82	51	35	14.80		GRANITOID
437	I082	48	50	37	82	51	44	0.17		GRANITOID
438	I083	48	50	44	82	51	49	0.12		GRANITOID
439	I084	48	50	44	82	52	19	1.24		GRANITOID
440	I085A	48	50	48	82	52	29	1.73		GRANITOID

Appendix2-22 Field Measurements of Physical Properties

No.	POINT No.	NORTH CORDINATION			EAST CORDINATION			MAGNETIC SUCEPTIBILITY ($\times 10^{-3}$ S.I.U.)	RADIATION ACTIVITY (μ Sv/h)	FIELD ROCK NAME
		°	'	"	°	'	"			
441	I085B	48	50	48	82	52	29	19.80		GRANITOID
442	I086	48	50	50	82	52	36	0.04		GRANITOID
443	I087	48	52	1	82	49	25	2.02	0.01	GRANITOID
444	I088	48	52	5	82	48	12	1.46	0.04	GRANITOID
445	I089	48	52	1	82	48	12	4.82	0.06	GRANITOID
446	I090	48	51	56	82	48	1	1.73		GRANITOID
447	I091	48	51	51	82	47	53	4.05	0.04	GRANITOID
448	I092	48	51	46	82	47	53	2.74	0.03	GRANITOID
449	I093	48	51	42	82	48	6	1.70	0.07	GRANITOID
450	I094	48	51	37	82	48	14	1.06	0.06	GRANITOID
451	I095	48	51	47	82	48	16	1.66	0.04	GRANITOID
452	I096	48	51	52	82	48	16	0.61	0.02	GRANITOID
453	I097	48	53	7	82	48	13	3.00	0.03	GRANITOID
454	I098	48	53	2	82	48	8	0.28	0.04	GRANITOID
455	I099	48	53	3	82	48	3	0.23	0.03	GRANITOID
456	I100	48	52	58	82	47	53	2.67	0.01	GRANITOID
457	I101	48	52	52	82	47	48	1.80	0.01	GRANITOID
458	I102	48	52	45	82	47	49	1.98	0.03	GRANITOID
459	I103	48	52	35	82	47	53	3.77	0.04	GRANITOID
460	I104	48	52	29	82	47	49	2.66	0.04	GRANITOID
461	I105	48	52	32	82	47	40	1.80	0.03	GRANITOID
462	I106	48	52	39	82	47	41	27.70	0.02	GABBRO
463	I107	48	52	14	82	47	37	0.98	0.02	GRANITOID
464	I108	48	52	49	82	47	31	6.38	0.04	GRANITOID
465	I109	48	52	55	82	47	30	2.01	0.07	GRANITOID
466	I110	48	53	3	82	47	49	1.51	0.03	GRANITOID
467	I111	48	53	9	82	48	1	0.14	0.02	GRANITOID
468	I112	48	53	17	82	49	10	0.16	0.04	GRANITOID
469	I113	48	51	56	82	50	11	0.04		GRANITOID
470	I114	48	51	52	82	50	47	0.24		GRANITOID
471	I115	48	51	49	82	50	19	0.17		GRANITOID
472	I116	48	51	43	82	50	16	0.07		GRANITOID
473	I117	48	51	54	82	50	26	0.05		GRANITOID
474	I118	48	51	51	82	50	34	0.04		GRANITOID
475	I119A	48	51	46	82	50	48	13.50		GRANITOID
476	I119B	48	51	46	82	50	48	1.33		GRANITOID
477	I120	48	51	53	82	50	48	1.08		GRANITOID
478	I121	48	51	58	82	50	48	12.10		GRANITOID
479	I122	48	53	56	82	50	30	1.76		GRANITOID
480	I123	48	53	54	82	50	31	2.31		GRANITOID
481	I124	48	53	51	82	50	44	1.85		GRANITOID
482	I125	48	53	43	82	50	46	0.21		GRANITOID
483	I126	48	53	35	82	50	48	3.62		GRANITOID
484	I127	48	53	28	82	50	42	2.72		GRANITOID
485	I128	48	53	24	82	50	29	0.49		GRANITOID
486	I129	48	44	14	82	58	19	4.68		GRANITOID
487	I130	48	44	19	82	58	27	22.40		GRANITOID
488	I131	48	44	35	82	58	50	1.72		GRANITOID
489	I132	48	44	43	82	58	56	31.50		GRANITOID
490	I133	48	44	45	82	59	0	10.10		GRANITOID
491	I134	48	44	59	82	58	47	9.77		GRANITOID
492	I135	48	45	5	82	58	42	0.21		GRANITOID
493	I136	48	45	8	82	58	37	0.18		GRANITOID
494	I137	48	45	12	82	58	31	0.18		GRANITOID
495	I138	48	45	8	82	58	27	6.01		GRANITOID

Appendix2-22 Field Measurements of Physical Properties

No.	POINT No.	NORTH CORDINATION			EAST CORDINATION			MAGNETIC SUCCEPTIBILITY ($\times 10^{-3}$ S.I.U.)	RADIATIN ACTIVITY (μ Sv/h)	FIELD ROCK NAME
		°	'	"	°	'	"			
496	I139	48	45	7	82	58	21	0.23		GRANITOID
497	I140	48	45	17	82	58	16	16.50		GRANITOID
498	I141	48	45	18	82	58	20	0.21		GRANITOID
499	I142	48	54	21	82	50	41	0.25		GRANITOID
500	I143	48	54	18	82	50	47	0.48		GRANITOID
501	I144	48	54	13	82	50	53	1.70		GRANITOID
502	I145	48	54	10	82	50	54	0.48		GRANITOID
503	I146	48	54	9	82	50	58	4.10		GRANITOID
504	I147	48	54	4	82	51	1	1.24		GRANITOID
505	I148	48	54	0	82	50	53	0.96		GRANITOID
506	I149	48	53	59	82	50	46	0.09		GRANITOID
507	I150	48	54	0	82	50	41	0.94		GRANITOID
508	I151	48	54	3	82	50	41	0.78		GRANITOID
509	I152	48	53	59	82	50	35	1.28		GRANITOID

Appendix 2-23 The Results of Opaque EDX Analysis

Appendix 2-23 The Results of of Opaque EDX Analysis

ANALYZED POINT	Ti %	Fe %	Mn %	O %	Mg %	Si %	V %	Mineralogical name	Fe/Ti+Fe	Min. Opaque Calc.	Fe/Ti+Fe Calc.	Min. Opaque Weight
G004-1	35.47	30.35	9.36	24.82				Ilmenite	0.46			
G004-2	0.50	73.83	3.34	22.33				Magnetite	0.99			
G004-3	4.88	67.90	3.88	23.35				Titaniferous magnetite	0.93			
G004-4	34.41	31.72	8.99	24.88				Ilmenite	0.48			
Average									0.72	0.4	0.3	0.46
G031-1	0.32	73.56	2.68	22.92			0.52	Magnetite	1.00			
G031-2	0.00	75.90		23.78	0.07		0.25	Magnetite	1.00			
G031-3	0.00	76.25		23.56	0.00		0.20	Magnetite	1.00			
Average									1.00	3.7	3.7	35.5
G034-1	9.70	62.53	4.12	23.66				Titaniferous magnetite	0.87			
G034-2	34.84	34.12	5.71	25.34				Ilmenite	0.49			
G034-3	35.35	31.54	8.48	24.63				Ilmenite	0.47			
G034-4	34.64	33.74	6.83	24.79				Ilmenite	0.49			
G034-5	4.11	70.90	3.86	21.13				Titaniferous magnetite	0.95			
G034-6	35.24	35.69	5.01	24.06				Ilmenite	0.50			
G034-7	14.26	58.14	4.24	23.36				Titaniferous magnetite	0.80			
Average									0.65	0.4	0.3	4.67
G053-1	35.09	37.02	2.47	25.42				Ilmenite	0.51			
G053-2	0.00	51.99	4.59	25.00	1.27	17.17		Hisingerite	1.00			
G053-3	35.40	36.73	2.53	25.34				Ilmenite	0.51			
G053-4	0.00	52.03	4.23	25.08	1.40	17.26		Hisingerite	1.00			
Average									0.51	1.0	0.5	
G087-1	10.83	60.99	3.37	24.81				Titaniferous magnetite	0.85			
G087-2	10.68	61.40	4.38	23.53				Titaniferous magnetite	0.85			
G087-3	4.60	69.49	3.21	22.69				Titaniferous magnetite	0.94			
G087-4	2.76	71.98	3.04	22.22				Titaniferous magnetite	0.96			
G087-5	33.59	37.64	3.40	25.37				Ilmenite	0.53			
G087-6	11.68	59.66	3.64	25.01				Titaniferous magnetite	0.84			
G087-7	11.50	59.62	4.41	24.47				Titaniferous magnetite	0.84			
Average									0.83	0.3	0.2	3.66
G109-1	33.58	37.62	2.88	25.92				Ilmenite	0.53			
G109-2	34.29	37.26	2.46	25.99				Ilmenite	0.52			
G109-3A	2.92	71.84	3.28	21.96				Titaniferous magnetite	0.96			
G109-3B	33.89	36.75	3.53	25.83				Ilmenite	0.52			
G109-4	33.48	37.81	2.83	25.89				Ilmenite	0.53			
G109-5	33.77	37.53	3.13	25.57				Ilmenite	0.53			
Average									0.60	2.1	1.3	6.32
G124-1	1.60	73.52	3.09	21.80				Titaniferous magnetite	0.98			
G124-2	36.55	35.22	3.79	24.44				Ilmenite	0.49			
G124-3	1.33	74.60	3.06	21.01				Titaniferous magnetite	0.98			
G124-4	57.83	12.08	0.73	29.37				Rutile	0.17			
G124-5	54.90	14.24	0.42	30.44				Rutile	0.21			
Average									0.57	0.7	0.4	1.98
G209-1	34.30	36.52	4.82	24.36				Ilmenite	0.52			
G209-2	14.03	58.34	2.58	25.05				Titaniferous magnetite	0.81			
G209-3	4.95	68.68	3.00	23.38				Titaniferous magnetite	0.93			
G209-4	34.53	36.51	4.49	24.47				Ilmenite	0.51			
G209-5	34.65	36.36	3.62	25.37				Ilmenite	0.51			
Average									0.66	0.4	0.3	1.3
I002-1	2.11	73.09	3.47	21.34				Titaniferous magnetite	0.97			
I002-2	7.27	66.71	3.28	22.74				Titaniferous magnetite	0.90			
I002-3	4.66	69.61	3.56	22.17				Titaniferous magnetite	0.94			
I002-4	9.68	66.32	4.23	19.77				Titaniferous magnetite	0.87			
I002-6a	34.82	37.39	3.95	23.83				Ilmenite	0.52			
Average									0.84	1.0	0.8	3.42
I004-1	33.70	35.93	1.89	26.70			1.77	Ilmenite	0.52			
I004-2	35.26	35.80	2.15	25.71			1.08	Ilmenite	0.50			
I004-3	33.63	37.20	2.29	25.40			1.49	Ilmenite	0.53			
I004-4	34.32	37.78	2.32	25.58				Ilmenite	0.52			
Average									0.52	1.6	0.8	59.3

Appendix 2-23 The Results of of Opaque EDX Analysis

MJBK-21 41.0m	MEASURED POINT No.	Ti	Fe	Mn	Fe+Mn	O	TiO ₂	(Fe,Mn)O
	2	36.88	33.30	2.22	35.52	27.60	55.28	44.72
	1	35.22	35.20	3.60	38.80	25.99	52.55	47.46
	3	35.11	36.13	2.77	38.90	25.99	52.44	47.56
	5	34.87	35.24	2.88	38.12	27.01	52.88	47.12
	4b	34.71	35.02	2.88	37.90	27.38	52.96	47.03
	8	33.43	34.74	2.71	37.45	29.11	52.84	47.15
	7	33.36	32.77	2.49	35.26	31.37	54.27	45.72
	10	33.24	37.83	2.82	40.65	26.11	50.65	49.35
	4	33.20	38.21	3.16	41.37	25.43	50.15	49.85
6	33.05	32.62	1.58	34.20	29.44	52.68	44.01	
AVERAGE	34.31	35.11	2.71	37.82	27.54	52.67	47.00	

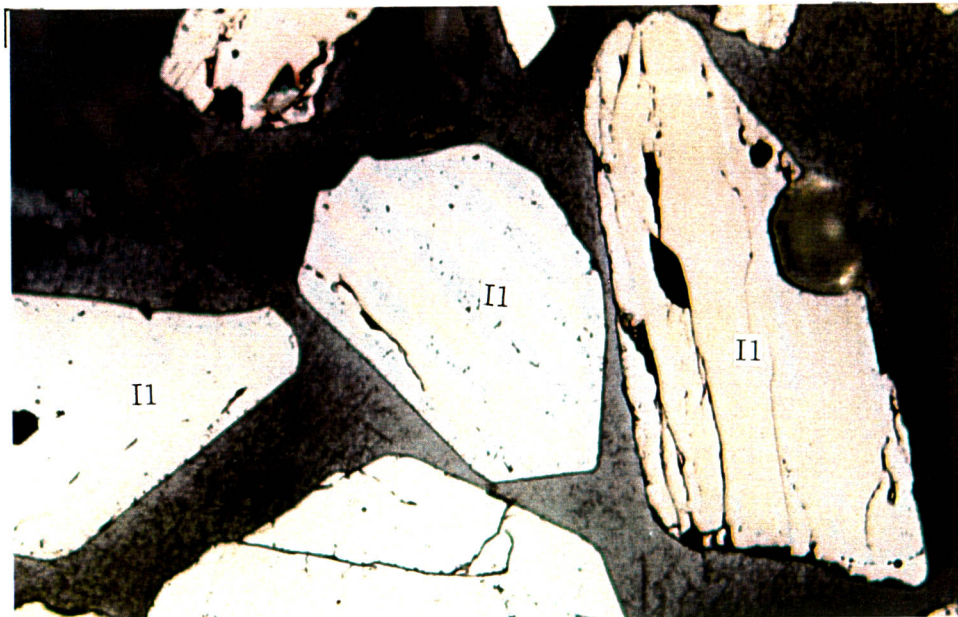
MJBK-29 48.0m	MEASURED POINT No.	Ti	Fe	Mn	Fe+Mn	O	TiO ₂	(Fe,Mn)O
	5	42.06	29.76	1.75	31.51	26.43	59.68	40.32
	1	41.41	29.56	1.70	31.26	27.34	59.64	40.37
	6	41.11	30.06	1.61	31.67	27.22	59.26	40.74
	10	41.01	30.72	1.94	32.66	26.33	58.56	41.44
	4	40.79	30.64	1.99	32.63	26.58	58.51	41.49
	2	40.58	30.31	2.02	32.33	27.08	58.63	41.36
	8	40.11	30.33	2.30	32.63	27.25	58.28	41.71
	3b	39.64	31.35	2.31	33.66	26.70	57.44	42.56
	12	38.44	33.06	1.84	34.90	26.66	56.21	43.79
	9	34.92	36.39	3.76	40.15	24.92	51.53	48.46
	3	32.90	40.08	2.85	42.93	24.17	49.01	50.99
	AVERAGE	39.36	32.02	2.19	34.21	26.43	56.98	43.02

TMK TEST PIT	MEASURED POINT No.	Ti	Fe	Mn	Fe+Mn	O	TiO ₂	(Fe,Mn)O
	2-10b	41.54	29.83	2.05	31.88	26.58	59.26	40.74
	2-8.	40.97	30.40	2.36	32.76	26.27	58.48	41.52
	2-9b	39.18	32.18	2.33	34.51	26.30	56.71	43.28
	1-4b	38.29	32.94	2.01	34.95	26.76	56.13	43.87
	1-6.	36.77	35.34	3.30	38.64	24.59	53.16	46.84
	2-10.	35.64	37.36	2.94	40.30	24.06	51.68	48.32
	2.7.	35.39	38.58	1.68	40.26	24.35	51.62	48.38
	2-9.	35.16	38.11	2.67	40.78	24.06	51.20	48.80
	1-2.	34.43	38.81	2.74	41.55	24.02	50.44	49.56
	1-4.	33.19	40.14	2.77	42.91	23.90	49.12	50.88
	1-3.	32.99	39.84	3.07	42.91	24.10	49.06	50.94
	1-5.	32.98	40.41	2.81	43.22	23.81	48.85	51.16
	1-1.	32.93	40.33	2.50	42.83	24.25	49.10	50.91
	AVERAGE	32.93	36.48	2.56	39.04	24.85	49.50	47.32

Appendix 2-24 Photomicrographs of Ilmenite

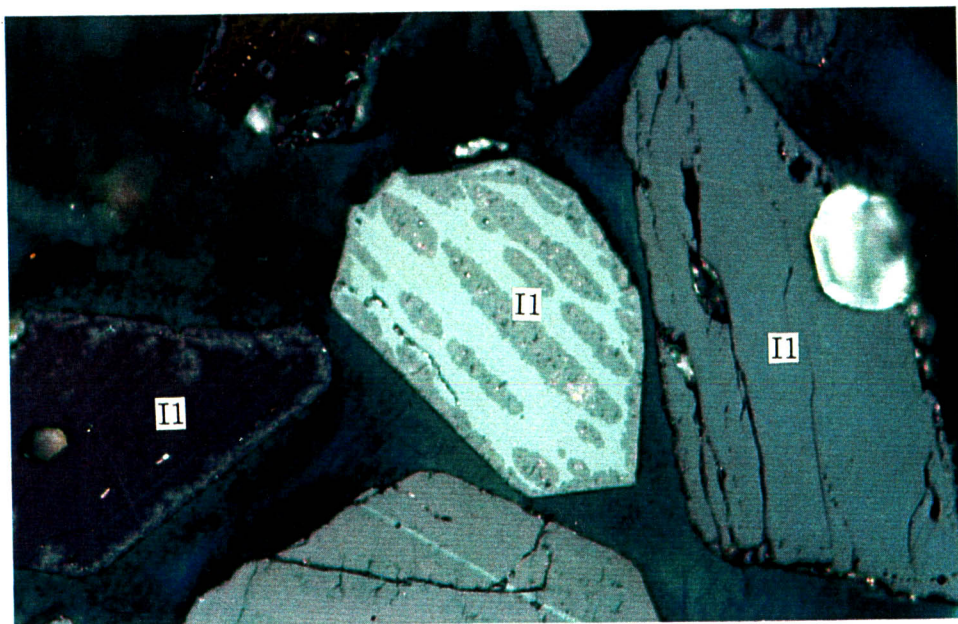
Photomicrograph of Ilmenite (Reflected light)

Ilmenite concentrate from TMK Test Pit



0 0.1mm

Film. No. 0199- 3



Crossed polarized light

0 0.1mm

Film No. 0199- 2

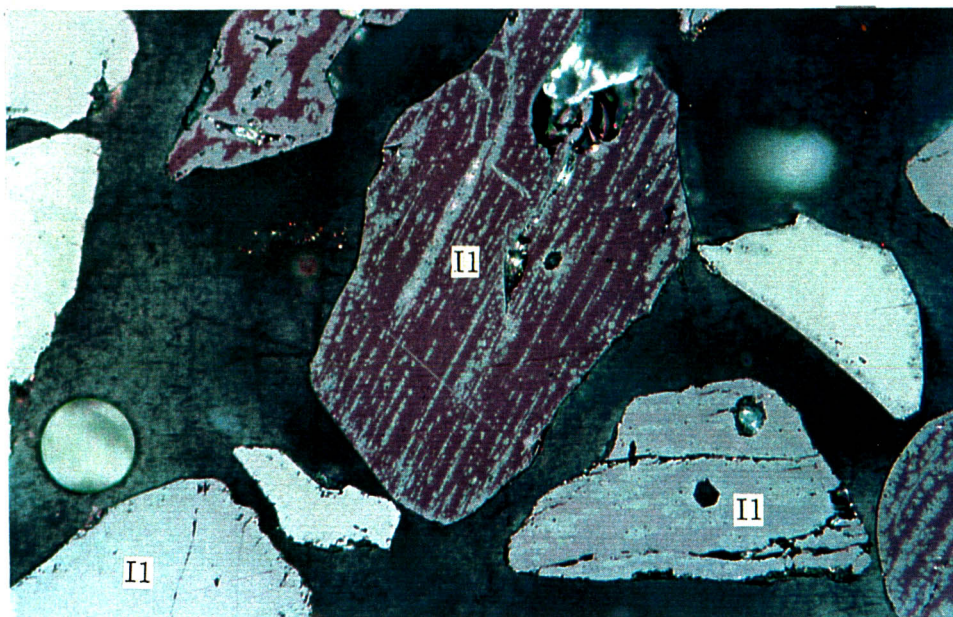
Photomicrograph of Ilmenite (Reflected light)

Ilmenite concentrate from TMK Test Pit



0 0.1mm

Film No. 0199 - 11A



Crossed polarized light

0 0.1mm

Film No. 0199 - 12A

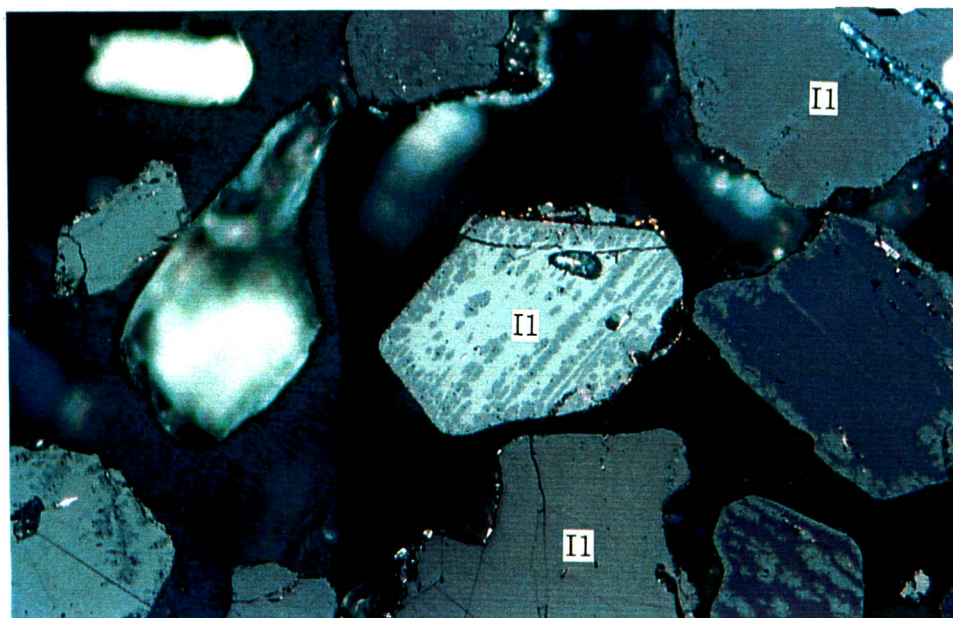
Photomicrograph of Ilmenite (Reflected light)

Ilmenite concentrate from TMK Test Pit



0 0.1mm

Film. No. 0199 - 5A



Crossed polarized light

0 0.1mm

Film No. 0199 - 4A

Appendix 3. Miscellaneous Data for the Drilling Survey

Appendix 3-1 List of the Used Equipment for Drilling

Appendix 3-1 List of the Used Equipment for Drilling (1)

No.1 machine

Item	Model, type and specification	Quantity	Note
Drilling machine	UGB-3UK,	1	percussion
Motor for Drilling machine	22kw	1	
Generator	60KVA	1	
Tank for water	3m ³	1	
Tank for fuel	1m ³	1	
Tanker for water	3m ³	1	
Trailer house	6 passengers	1	
Casing pipes	12" L= 6.70m	5	
	10" L= 6.70m	10	
	8" L= 2.00m	20	
Bailer	φ 300mm L= 3.80m	1	
	φ 240mm L= 3.50m	1	
	φ 240mm L= 2.20m	1	ball valve
Sampler	φ 190mm L= 5.00m	1	
Hanmer with chain	W=1,000kg	1	used for driving casing pipes
Tripod derrick	H= 9.0m	1	used for recovering casing pipes
Implements		1	

Appendix 3-1 List of the Used Equipment for Drilling (2)

No.2 machine

Item	Model, type and specification	Quantity	Note
Drilling machine	UGB-3UK,	1	percussion
Motor for Drilling machine	22kw	1	
Generator	40KVA, 400V, 52A	1	
Tank for water	3m ³	1	
Tank for fuel	1.5m ³	1	
Tanker for water	3m ³	1	
Trailer house	6 passengers	1	
Casing pipes	12" L= 6.70m	5	
	10" L= 6.70m	10	
	8" L= 2.00m	30	
Bailer	φ 300mm L= 3.80m	1	
	φ 240mm L= 3.50m	1	
	φ 240mm L= 2.20m	1	ball valve
Sampler	φ 190mm L= 5.00m	1	
Hanmer with chain	W=1,000kg	1	used for driving casing pipes
Tripod derrick	H= 9.0m	1	used for recovering casing pipes
Implements		1	

Appendix 3-1 List of the Used Equipment for Drilling (3)

No.3 machine

Item	Model, type and specification	Quantity	Note
Drilling machine	UGB-2A-2	1	rotary
Motor for Drilling machine	MJBOK-13, 131HP	1	
Drilling Pump	MB-50, 50m ³ /h	1	
Pump for water	100L/min	1	
Generator	3KVA	1	
Tank for water	2m ³	1	
Tank for fuel	1m ³	1	
Tanker for water	3m ³	1	
Tractor		1	
Truck	4t, 10t	2	
Bus		1	
Rods	φ 50mm L= 6.70m	20	
Casing pipes	φ 127mm L= 3.00m	5	
	φ 144mm L= 4.50m	20	
	φ 98mm L= 1.50m	5	
Core tube assembly	φ 127mm L= 1.50m	3	
	φ 89mm L= 3.00m	3	
Implements		1	

**Appendix 3-2 Miscellaneous Results of Drilling Works
on Individual Drillhole**

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-18)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	9 Jul., '01 ~ 9 Jul., '01	0.50	0.50	—	2	5
Drilling	10 Jul., '01 ~ 13 Jul., '01	3.25	Drilling : 3.25	—	16.5	32.5
			Accident: 0.00	—	—	—
Dismount	13 Jul., '01 ~ 13 Jul., '01	0.25	0.25	—	1.5	2.5
Total	9 Jul., '01 ~ 13 Jul., '01	4.00	4.00	—	20	40
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			6.00 m	
Prolongation	-10.00 m	Core length			24.00 m	
Effective length	30.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	24.0 hrs	44.4%	31.5%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	30.0 hrs	55.6%	39.5%	0 - 6.0	None core	None core
Recovery from accident	—	—	—	6.0 - 10.0	100.0	100.0
Subtotal	54.0 hrs	100%	71.0%	10.0 - 20.0	100.0	100.0
Preparation/setting up	6.0 hrs	—	7.9%	20.0 - 30.0	100.0	100.0
Dismount/mobilization	4.0 hrs	—	5.3%			
Transportation of water	12.0 hrs	—	15.8%	Efficiency		
Others				Effective length / Working drilling days		
				= 30.00m/3.25 days = 9.23 m/d		
				Effective length / Total drilling shifts =		
Total	76.0 hrs	—	100%	= 30.00m/6.5 shifts = 4.62 m/shift		
Drilling length by diameter						
Bit diameter	190mm ϕ					Total
Drilling length	30.00 m					30.00 m
Core length	24.00 m					24.00 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
200mm ϕ	7.00 m	23.33%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-19)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	13 Jul., '01 ~ 13 Jul., '01	0.25	0.25	—	1	2.5
Drilling	13 Jul., '01 ~ 14 Jul., '01	0.50	Drilling : 0.50	—	2.5	5
			Accident: 0.00	—	—	—
Dismount	14 Jul., '01 ~ 14 Jul., '01	0.25	0.25	—	1.5	2.5
Total	13 Jul., '01 ~ 14 Jul., '01	1.00	1.00	—	5	10
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			7.50 m	
Prolongation	4.00 m	Core length			36.50 m	
Effective length	44.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	9.0 hrs	75.0%	45.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	3.0 hrs	25.0%	15.0%	0 - 7.5	None core	None core
Recovery from accident	-	-	-	7.5 - 10.0	100.0	100.0
Subtotal	12.0 hrs	100%	60.0%	10.0 - 20.0	100.0	100.0
Preparation/setting up	2.0 hrs	-	10.0%	20.0 - 30.0	100.0	100.0
Dismount/mobilization	2.0 hrs	-	10.0%	30.0 - 40.0	100.0	100.0
				40.0 - 44.0	100.0	100.0
Transportation of water	4.0 hrs	-	20.0%	Efficiency		
Others				Effective length / Working drilling days		
				= 44.00m/0.5 days = 88.00 m/d		
				Effective length / Total drilling shifts =		
Total	20.0 hrs	-	100%	= 44.00m/1 shifts = 44.00 m/shift		
Drilling length by diameter						
Bit diameter	190mm ϕ					Total
Drilling length	44.00 m					44.00 m
Core length	36.50 m					36.50 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
200mm ϕ	8.00 m	18.18%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-20)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	11 Jul., '01 ~ 11 Jul., '01	0.25	0.25	—	1.5	2.5
Drilling	11 Jul., '01 ~ 12 Jul., '01	1.50	Drilling : 1.50	—	7.5	15
			Accident: 0.00	—	—	—
Dismount	12 Jul., '01 ~ 12 Jul., '01	0.25	0.25	—	1	2.5
Total	11 Jul., '01 ~ 12 Jul., '01	2.00	2.00	—	10	20
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			8.00 m	
Prolongation	-3.00 m	Core length			29.00 m	
Effective length	37.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	14.0 hrs	53.8%	35.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	12.0 hrs	46.2%	30.0%	0 - 8.0	None core	None core
Recovery from accident	-	-	-	8.0 - 10.0	100.0	100.0
Subtotal	26.0 hrs	100%	65.0%	10.0 - 20.0	100.0	100.0
Preparation/setting up	2.0 hrs	-	5.0%	20.0 - 30.0	100.0	100.0
Dismount/mobilization	4.0 hrs	-	10.0%	30.0 - 37.0	100.0	100.0
Transportation of water	8.0 hrs	-	20.0%	Efficiency		
Others				Effective length / Working drilling days		
				= 37.00m/1.5 days = 24.67 m/d		
				Effective length / Total drilling shifts =		
Total	40.0 hrs	-	100%	= 37.00m/3 shifts = 12.33 m/shift		
Drilling length by diameter						
Bit diameter	190mm ϕ					Total
Drilling length	37.00 m					37.00 m
Core length	29.00 m					29.00 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
200mm ϕ	9.00 m	24.32%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-21)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	13 Jul., '01 ~ 13 Jul., '01	0.50	0.50	—	3	5
Drilling	13 Jul., '01 ~ 17 Jul., '01	4.75	Drilling : 4.00	—	17	40
			Accident: 0.75	—	3.5	7.5
Dismount	18 Jul., '01 ~ 18 Jul., '01	0.25	0.25	—	1.5	2.5
Total	13 Jul., '01 ~ 18 Jul., '01	5.50	5.50	—	25	55
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			11.00 m	
Prolongation	3.00 m	Core length			32.00 m	
Effective length	43.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	40.0 hrs	52.6%	38.5%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	26.0 hrs	34.2%	25.0%	0 - 11.0	None core	None core
Recovery from accident	10.0 hrs	13.2%	9.6%	11.0 - 20.0	100.0	100.0
Subtotal	76.0 hrs	100%	73.1%	20.0 - 30.0	100.0	100.0
Preparation/setting up	4.0 hrs	—	3.8%	30.0 - 40.0	100.0	100.0
Dismount/mobilization	8.0 hrs	—	7.7%	40.0 - 43.0	100.0	100.0
Transportation of water	16.0 hrs	—	15.4%	Efficiency		
Others				Effective length / Working drilling days		
				= 43.00m/4.75 days = 9.05 m/d		
				Effective length / Total drilling shifts =		
Total	104.0 hrs	—	100%	= 43.00m/9.5 shifts = 4.53 m/shift		
Drilling length by diameter						
Bit diameter	190mm ϕ					Total
Drilling length	43.00 m					43.00 m
Core length	32.00 m					32.00 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
200mm ϕ	11.00 m	25.58%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-22)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	24 Aug., '01 ~ 24 Aug., '01	0.25	0.25	—	1	2.5
Drilling	24 Aug., '01 ~ 31 Aug., '01	6.25	Drilling : 5.75	—	29	57.5
			Accident: 0.50	—	3	5
Dismount	31 Aug., '01 ~ 31 Aug., '01	0.50	0.50	—	2	5
Total	24 Aug., '01 ~ 31 Aug., '01	7.00	7.00	—	35	70
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			9.00 m	
Prolongation	25.00 m	Core length			56.00 m	
Effective length	65.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	49.0 hrs	45.8%	34.5%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	53.0 hrs	49.5%	37.4%	0 - 9.0	None core	None core
Recovery from accident	5.0 hrs	4.7%	3.5%	9.0 - 10.0	100.0	100.0
Subtotal	107.0 hrs	100%	75.4%	10.0 - 20.0	100.0	100.0
Preparation/setting up	3.0 hrs	—	2.1%	20.0 - 30.0	100.0	100.0
Dismount/mobilization	10.0 hrs	—	7.0%	30.0 - 40.0	100.0	100.0
				40.0 - 50.0	100.0	100.0
Transportation of water	22.0 hrs	—	15.5%	Efficiency		
Others				Effective length / Working drilling days		
				= 65.00m/6.25 days = 10.40 m/d		
				Effective length / Total drilling shifts =		
Total	142.0 hrs	—	100%	= 65.00m/12.5 shifts = 5.20 m/shift		
Drilling length by diameter						
Bit diameter	190mm ϕ					Total
Drilling length	65.00 m					65.00 m
Core length	56.00 m					56.00 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
270mm ϕ	9.00 m	13.85%		100%		
200mm ϕ	16.00 m	24.62%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-23)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	14 Jul., '01 ~ 14 Jul., '01	0.50	0.50	—	2	5
Drilling	15 Jul., '01 ~ 27 Jul., '01	12.25	Drilling : 9.25	—	47.5	107.5
			Accident: 3.00	—	14	15
Dismount	27 Jul., '01 ~ 27 Jul., '01	0.25	0.25	—	1.5	2.5
Total	14 Jul., '01 ~ 27 Jul., '01	13.00	13.00	—	65	130
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			10.00 m	
Prolongation	20.00 m	Core length			50.00 m	
Effective length	60.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	46.0 hrs	25.3%	20.3%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	65.0 hrs	35.7%	28.8%	0 - 10.0	None core	None core
Recovery from accident	71.0 hrs	39.0%	31.4%	10.0 - 20.0	100.0	100.0
Subtotal	182.0 hrs	100%	80.5%	20.0 - 30.0	100.0	100.0
Preparation/setting up	4.0 hrs	—	1.8%	30.0 - 40.0	100.0	100.0
Dismount/mobilization	8.0 hrs	—	3.5%	40.0 - 50.0	100.0	100.0
				50.0 - 60.0	100.0	100.0
Transportation of water	32.0 hrs	—	14.2%	Efficiency		
Others				Effective length / Working drilling days		
				= 60.00m/12.25 days = 4.90 m/d		
				Effective length / Total drilling shifts =		
Total	226.0 hrs	—	100%	= 60.00m/24.5 shifts = 2.45 m/shift		
Drilling length by diameter						
Bit diameter	190mm ϕ					Total
Drilling length	60.00 m					60.00 m
Core length	50.00 m					50.00 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
250mm ϕ	6.00 m	10.00%		100%		
200mm ϕ	10.00 m	16.67%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-24)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	18 Jul., '01 ~ 18 Jul., '01	0.50	0.50	—	2	5
Drilling	19 Jul., '01 ~ 23 Jul., '01	4.75	Drilling : 4.25	—	21	42.5
			Accident: 0.50	—	2	5
Dismount	23 Jul., '01 ~ 23 Jul., '01	0.25	0.25	—	1	2.5
Total	18 Jul., '01 ~ 23 Jul., '01	5.50	5.50	—	26	55
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			8.00 m	
Prolongation	18.00 m	Core length			50.00 m	
Effective length	58.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	36.0 hrs	46.8%	34.6%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	31.0 hrs	40.3%	29.8%	0 - 8.0	None core	None core
Recovery from accident	10.0 hrs	12.9%	9.6%	8.0 - 10.0	100.0	100.0
Subtotal	77.0 hrs	100%	74.0%	10.0 - 20.0	100.0	100.0
Preparation/setting up	4.0 hrs	—	3.9%	20.0 - 30.0	100.0	100.0
Dismount/mobilization	7.0 hrs	—	6.7%	30.0 - 40.0	100.0	100.0
Transportation of water	16.0 hrs	—	15.4%	40.0 - 50.0	100.0	100.0
Others				50.0 - 58.0	100.0	100.0
Total	104.0 hrs	—	100%	Efficiency		
Effective length / Working drilling days = 58.00m/4.75 days = 12.21 m/d						
Effective length / Total drilling shifts = = 58.00m/9.5 shifts = 6.11 m/shift						
Drilling length by diameter						
Bit diameter	190mm ϕ					Total
Drilling length	58.00 m					58.00 m
Core length	50.00 m					50.00 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
200mm ϕ	9.00 m	15.52%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-25)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	22 Aug., '01 ~ 22 Aug., '01	0.50	0.50	—	3	5
Drilling	22 Aug., '01 ~ 25 Aug., '01	3.25	Drilling : 3.25	—	16	32.5
			Accident: 0.00	—	—	—
Dismount	25 Aug., '01 ~ 25 Aug., '01	0.25	0.25	—	1	2.5
Total	22 Aug., '01 ~ 25 Aug., '01	4.00	4.00	—	20	40
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			10.00 m	
Prolongation	3.00 m	Core length			33.00 m	
Effective length	43.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	34.0 hrs	63.0%	44.7%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	20.0 hrs	37.0%	26.3%	0 - 10.0	None core	None core
Recovery from accident	—	—	—	10.0 - 20.0	100.0	100.0
Subtotal	54.0 hrs	100%	71.0%	20.0 - 30.0	100.0	100.0
Preparation/setting up	6.0 hrs	—	7.9%	30.0 - 40.0	100.0	100.0
Dismount/mobilization	4.0 hrs	—	5.3%	40.0 - 43.0	100.0	100.0
Transportation of water	12.0 hrs	—	15.8%	Efficiency		
Others				Effective length / Working drilling days		
				= 43.00m/3.25 days = 13.23 m/d		
				Effective length / Total drilling shifts =		
Total	76.0 hrs	—	100%	= 43.00m/6.5 shifts = 6.62 m/shift		
Drilling length by diameter						
Bit diameter	190mm ϕ					Total
Drilling length	43.00 m					43.00 m
Core length	33.00 m					33.00 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
270mm ϕ	8.00 m	18.60%		100%		
200mm ϕ	10.00 m	23.26%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-26)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	20 Aug., '01 ~ 20 Aug., '01	0.50	0.50	—	3	5
Drilling	20 Aug., '01 ~ 23 Aug., '01	3.75	Drilling : 3.75	—	18.5	37.5
			Accident: 0.00	—	—	—
Dismount	24 Aug., '01 ~ 24 Aug., '01	0.25	0.25	—	2.5	2.5
Total	20 Aug., '01 ~ 24 Aug., '01	4.50	4.50	—	24	45
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			9.00 m	
Prolongation	10.00 m	Core length			41.00 m	
Effective length	50.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	34.0 hrs	56.7%	39.5%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	26.0 hrs	43.3%	30.2%	0 - 9.0	None core	None core
Recovery from accident	—	—	—	9.0 - 10.0	100.0	100.0
Subtotal	60.0 hrs	100%	69.7%	10.0 - 20.0	100.0	100.0
Preparation/setting up	4.0 hrs	—	4.7%	20.0 - 30.0	100.0	100.0
Dismount/mobilization	8.0 hrs	—	9.3%	30.0 - 40.0	100.0	100.0
Transportation of water	14.0 hrs	—	16.3%	40.0 - 50.0	100.0	100.0
Others				Efficiency		
				Effective length / Working drilling days		
				= 50.00m/3.75 days = 13.33 m/d		
				Effective length / Total drilling shifts =		
Total	86.0 hrs	—	100%	= 50.00m/7.5 shifts = 6.66 m/shift		
Drilling length by diameter						
Bit diameter	190mm ϕ					Total
Drilling length	50.00 m					50.00 m
Core length	41.00 m					41.00 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
270mm ϕ	8.00 m	16.00%		100%		
200mm ϕ	9.00 m	18.00%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-27)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	14 Aug., '01 ~ 14 Aug., '01	0.50	0.50	—	2	5
Drilling	15 Aug., '01 ~ 19 Aug., '01	4.75	Drilling : 4.50	—	22	45
			Accident: 0.25	—	1	2.5
Dismount	19 Aug., '01 ~ 19 Aug., '01	0.25	0.25	—	1	2.5
Total	14 Aug., '01 ~ 19 Aug., '01	5.50	5.50	—	26	55
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			9.00 m	
Prolongation	10.00 m	Core length			41.00 m	
Effective length	50.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	46.0 hrs	63.0%	43.4%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	25.0 hrs	34.3%	23.6%	0 - 9.0	None core	None core
Recovery from accident	2.0 hrs	2.7%	1.9%	9.0 - 10.0	100.0	100.0
Subtotal	73.0 hrs	100%	68.9%	10.0 - 20.0	100.0	100.0
Preparation/setting up	8.0 hrs	—	7.5%	20.0 - 30.0	100.0	100.0
Dismount/mobilization	7.0 hrs	—	6.6%	30.0 - 40.0	100.0	100.0
				40.0 - 50.0	100.0	100.0
Transportation of water	18.0 hrs	—	17.0%	Efficiency		
Others				Effective length / Working drilling days		
				= 50.00m/4.75 days = 10.53 m/d		
				Effective length / Total drilling shifts =		
Total	106.0 hrs	—	100%	= 50.00m/9.5 shifts = 5.26 m/shift		
Drilling length by diameter						
Bit diameter	190mm ϕ					Total
Drilling length	50.00 m					50.00 m
Core length	41.00 m					41.00 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
270mm ϕ	7.00 m	14.00%		100%		
200mm ϕ	9.00 m	18.00%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-28)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	9 Aug., '01 ~ 9 Aug., '01	0.25	0.25	—	1	2.5
Drilling	9 Aug., '01 ~ 14 Aug., '01	4.50	Drilling : 3.00	—	14.5	30
			Accident: 1.50	—	7	15
Dismount	14 Aug., '01 ~ 14 Aug., '01	0.25	0.25	—	1.5	2.5
Total	9 Aug., '01 ~ 14 Aug., '01	5.00	5.00	—	24	50
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			8.00 m	
Prolongation	14.00 m	Core length			46.00 m	
Effective length	54.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	33.0 hrs	45.8%	36.2%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	15.0 hrs	20.8%	16.5%	0 - 8.0	None core	None core
Recovery from accident	24.0 hrs	33.4%	26.4%	8.0 - 10.0	100.0	100.0
Subtotal	72.0 hrs	100%	79.1%	10.0 - 20.0	100.0	100.0
Preparation/setting up	4.0 hrs	—	4.4%	20.0 - 30.0	100.0	100.0
				30.0 - 40.0	100.0	100.0
Dismount/mobilization	4.0 hrs	—	4.4%	40.0 - 50.0	100.0	100.0
				50.0 - 54.0	100.0	100.0
Transportation of water	11.0 hrs	—	12.1%	Efficiency		
Others				Effective length / Working drilling days		
				= 54.00m/4.5 days = 12.00 m/d		
				Effective length / Total drilling shifts =		
Total	91.0 hrs	—	100%	= 54.00m/9 shifts = 6.00 m/shift		
Drilling length by diameter						
Bit diameter	190mm ϕ					Total
Drilling length	54.00 m					54.00 m
Core length	46.00 m					46.00 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
270mm ϕ	6.00 m	11.11%		100%		
200mm ϕ	8.00 m	14.81%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-29)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	5 Aug., '01 ~ 5 Aug., '01	0.25	0.25	—	1.5	2.5
Drilling	5 Aug., '01 ~ 9 Aug., '01	4.00	Drilling : 3.50	—	18	35
			Accident: 0.50	—	3	5
Dismount	9 Aug., '01 ~ 9 Aug., '01	0.25	0.25	—	1.5	2.5
Total	5 Aug., '01 ~ 9 Aug., '01	4.50	4.50	—	24	45
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			8.00 m	
Prolongation	18.00 m	Core length			50.00 m	
Effective length	58.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	32.0 hrs	51.6%	36.4%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	19.0 hrs	30.7%	21.6%	0 - 8.0	None core	None core
Recovery from accident	11.0 hrs	17.7%	12.5%	8.0 - 10.0	100.0	100.0
Subtotal	62.0 hrs	100%	70.5%	10.0 - 20.0	100.0	100.0
Preparation/setting up	4.0 hrs	—	4.5%	20.0 - 30.0	100.0	100.0
Dismount/mobilization	6.0 hrs	—	6.8%	30.0 - 40.0	100.0	100.0
				40.0 - 50.0	100.0	100.0
Transportation of water	16.0 hrs	—	18.2%	50.0 - 58.0	100.0	100.0
				Efficiency		
Others				Effective length / Working drilling days		
				= 58.00m/4.0 days = 14.50 m/d		
				Effective length / Total drilling shifts =		
Total	88.0 hrs	—	100%	= 58.00m/8.0 shifts = 7.25 m/shift		
Drilling length by diameter						
Bit diameter	190mm φ					Total
Drilling length	58.00 m					58.00 m
Core length	49.50 m					49.50 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
270mm φ	8.00 m	13.79%		100%		
200mm φ	8.00 m	13.79%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-30)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	29 Jul., '01 ~ 29 Jul., '01	0.50	0.50	—	2	5
Drilling	30 Jul., '01 ~ 4 Aug., '01	5.75	Drilling : 4.75	—	23	47.5
			Accident: 1.00	—	4	10
Dismount	4 Aug., '01 ~ 4 Aug., '01	0.25	0.25	—	1	2.5
Total	29 Jul., '01 ~ 4 Aug., '01	6.50	6.50	—	30	65
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			8.00 m	
Prolongation	20.00 m	Core length			52.00 m	
Effective length	60.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	50.0 hrs	53.2%	41.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	24.0 hrs	25.5%	19.7%	0 - 8.0	None core	None core
Recovery from accident	20.0 hrs	21.3%	16.3%	8.0 - 10.0	100.0	100.0
Subtotal	94.0 hrs	100%	77.0%	20.0 - 30.0	100.0	100.0
Preparation/setting up	4.0 hrs	—	3.3%	30.0 - 40.0	100.0	100.0
Dismount/mobilization	6.0 hrs	—	4.9%	40.0 - 50.0	100.0	100.0
				50.0 - 60.0	100.0	100.0
Transportation of water	18.0 hrs	—	14.8%	Efficiency		
Others				Effective length / Working drilling days		
				= 60.00m/5.75 days = 10.43 m/d		
				Effective length / Total drilling shifts =		
Total	122.0 hrs	—	100%	= 60.00m/11.5 shifts = 5.22 m/shift		
Drilling length by diameter						
Bit diameter	190mm ϕ					Total
Drilling length	60.00 m					60.00 m
Core length	52.00 m					52.00 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
270mm ϕ	8.00 m	13.33%		100%		
200mm ϕ	8.00 m	13.33%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-31)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	16 Aug., '01 ~ 16 Aug., '01	0.50	0.50	—	3	5
Drilling	16 Aug., '01 ~ 21 Aug., '01	5.25	Drilling : 5.25	—	26	52.5
			Accident: 0.00	—	—	—
Dismount	21 Aug., '01 ~ 21 Aug., '01	0.25	0.25	—	1	2.5
Total	16 Aug., '01 ~ 21 Aug., '01	6.00	6.00	—	30	60
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary				10.00 m
Prolongation	11.00 m	Core length				41.00 m
Effective length	51.00 m	Core recovery				100.0 %
Working hours				Core recovery by each 10 meters		
Drilling	51.0 hrs	60.7%	44.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	33.0 hrs	39.3%	28.4%	0 - 10.0	None core	None core
Recovery from accident	—	—	—	10.0 - 20.0	100.0	100.0
Subtotal	84.0 hrs	100%	72.4%	20.0 - 30.0	100.0	100.0
Preparation/setting up	4.0 hrs	—	3.5%	30.0 - 40.0	100.0	100.0
Dismount/mobilization	8.0 hrs	—	6.9%	40.0 - 50.0	100.0	100.0
				50.0 - 51.0	100.0	100.0
Transportation of water	20.0 hrs	—	17.2%	Efficiency		
Others				Effective length / Working drilling days		
				= 51.00m/5.25 days = 9.71 m/d		
				Effective length / Total drilling shifts =		
Total	116.0 hrs	—	100%	= 51.00m/10.5 shifts = 4.86 m/shift		
Drilling length by diameter						
Bit diameter	190mm ϕ					Total
Drilling length	51.00 m					51.00 m
Core length	41.00 m					41.00 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
270mm ϕ	7.00 m	13.73%		100%		
200mm ϕ	10.00 m	19.61%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-32)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	11 Aug., '01 ~ 11 Aug., '01	0.50	0.50	—	1	5
Drilling	12 Aug., '01 ~ 15 Aug., '01	3.85	Drilling : 3.20	—	16.4	29.3
			Accident: 0.65	—	3.3	5.4
Dismount	15 Aug., '01 ~ 15 Aug., '01	0.15	0.15	—	0.3	0.3
Total	11 Aug., '01 ~ 15 Aug., '01	4.50	4.50	—	21	40
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			8.00 m	
Prolongation	18.00 m	Core length			50.00 m	
Effective length	58.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	31.0 hrs	50.0%	36.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	21.0 hrs	33.9%	24.4%	0 - 8.0	None core	None core
Recovery from accident	10.0 hrs	16.1%	11.6%	8.0 - 10.0	100.0	100.0
Subtotal	62.0 hrs	100%	72.0%	10.0 - 20.0	100.0	100.0
Preparation/setting up	4.0 hrs	—	4.7%	20.0 - 30.0	100.0	100.0
				30.0 - 40.0	100.0	100.0
Dismount/mobilization	6.0 hrs	—	7.0%	40.0 - 50.0	100.0	100.0
				50.0 - 58.0	100.0	100.0
Transportation of water	14.0 hrs	—	16.3%	Efficiency		
Others				Effective length / Working drilling days		
				= 58.00m/3.85 days = 15.06 m/d		
				Effective length / Total drilling shifts =		
Total	86.0 hrs	—	100%	= 58.00m/7.7 shifts = 7.53 m/shift		
Drilling length by diameter						
Bit diameter	190mm ϕ					Total
Drilling length	58.00 m					58.00 m
Core length	50.00 m					50.00 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
270mm ϕ	8.00 m	13.79%		100%		
200mm ϕ	8.00 m	13.79%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-33)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	6 Aug., '01 ~ 6 Aug., '01	0.25	0.25	—	1	2.5
Drilling	7 Aug., '01 ~ 11 Aug., '01	4.50	Drilling : 4.50	—	22.5	45
			Accident: 0.00	—	—	—
Dismount	11 Aug., '01 ~ 11 Aug., '01	0.25	0.25	—	1.5	2.5
Total	6 Aug., '01 ~ 11 Aug., '01	5.00	5.00	—	25	50
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			9.00 m	
Prolongation	13.00 m	Core length			44.00 m	
Effective length	53.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	42.0 hrs	61.8%	43.7%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	26.0 hrs	38.2%	27.1%	0 - 9.0	None core	None core
Recovery from accident	—	—	—	9.0 - 10.0	100.0	100.0
Subtotal	68.0 hrs	100%	70.8%	10.0 - 20.0	100.0	100.0
Preparation/setting up	4.0 hrs	—	4.2%	20.0 - 30.0	100.0	100.0
				30.0 - 40.0	100.0	100.0
Dismount/mobilization	8.0 hrs	—	8.3%	40.0 - 50.0	100.0	100.0
				50.0 - 53.0	100.0	100.0
Transportation of water	16.0 hrs	—	16.7%	Efficiency		
Others				Effective length / Working drilling days		
				= 53.00m/4.5 days = 11.78 m/d		
				Effective length / Total drilling shifts =		
Total	96.0 hrs	—	100%	= 53.00m/9 shifts = 5.89 m/shift		
Drilling length by diameter						
Bit diameter	190mm ϕ					Total
Drilling length	53.00 m					53.00 m
Core length	44.00 m					44.00 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
270mm ϕ	9.00 m	16.98%		100%		
200mm ϕ	9.00 m	16.98%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-34)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	27 Jul., '01 ~ 27 Jul., '01	0.50	0.50	—	3	5
Drilling	28 Jul., '01 ~ 6 Aug., '01	9.25	Drilling : 5.50	—	27.5	56
			Accident: 3.75	—	19	37.5
Dismount	6 Aug., '01 ~ 6 Aug., '01	0.25	0.25	—	0.5	1.5
Total	27 Jul., '01 ~ 6 Aug., '01	10.00	10.00	—	50	100
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary				6.00 m
Prolongation	20.00 m	Core length				54.00 m
Effective length	60.00 m	Core recovery				100.0 %
Working hours				Core recovery by each 10 meters		
Drilling	50.0 hrs	33.8%	25.8%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	38.0 hrs	25.7%	19.6%	0 - 6.0	None core	None core
Recovery from accident	60.0 hrs	40.5%	30.9%	6.0 - 10.0	100.0	100.0
Subtotal	148.0 hrs	100%	76.3%	20.0 - 30.0	100.0	100.0
Preparation/setting up	6.0 hrs	-	3.1%	30.0 - 40.0	100.0	100.0
Dismount/mobilization	6.0 hrs	-	3.1%	40.0 - 50.0	100.0	100.0
Transportation of water	34.0 hrs	-	17.5%	50.0 - 60.0	100.0	100.0
Others				Efficiency		
Total	194.0 hrs	-	100%	Effective length / Working drilling days = 60.00m/9.25 days = 6.89 m/d		
				Effective length / Total drilling shifts = = 60.00m/18.5 shifts = 3.24 m/shift		
Drilling length by diameter						
Bit diameter	190mm ϕ					Total
Drilling length	60.00 m					60.00 m
Core length	51.00 m					51.00 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
270mm ϕ	7.00 m	11.67%		100%		
271mm ϕ	9.00 m	15.00%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-35)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	24 Jul., '01 ~ 24 Jul., '01	0.50	0.50	—	3	5
Drilling	24 Jul., '01 ~ 29 Jul., '01	4.75	Drilling : 4.75	—	24.5	47.5
			Accident: 0.00	—	—	—
Dismount	29 Jul., '01 ~ 29 Jul., '01	0.25	0.25	—	1.5	2.5
Total	24 Jul., '01 ~ 29 Jul., '01	5.50	5.50	—	29	55
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			8.00 m	
Prolongation	20.00 m	Core length			52.00 m	
Effective length	60.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	30.0 hrs	39.0%	30.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	47.0 hrs	61.0%	47.0%	0 - 8.0	None core	None core
Recovery from accident	—	—	—	8.0 - 10.0	100.0	100.0
Subtotal	77.0 hrs	100%	77.0%	10.0 - 20.0	100.0	100.0
Preparation/setting up	4.0 hrs	—	4.0%	20.0 - 30.0	100.0	100.0
				30.0 - 40.0	100.0	100.0
Dismount/mobilization	7.0 hrs	—	7.0%	40.0 - 50.0	100.0	100.0
				50.0 - 60.0	100.0	100.0
Transportation of water	12.0 hrs	—	12.0%	Efficiency		
Others				Effective length / Working drilling days		
				= 60.00m/4.75 days = 12.63 m/d		
				Effective length / Total drilling shifts =		
Total	100.0 hrs	—	100%	= 60.00m/9.5 shifts = 6.32 m/shift		
Drilling length by diameter						
Bit diameter	190mm ϕ					Total
Drilling length	60.00 m					60.00 m
Core length	52.00 m					52.00 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
200mm ϕ	10.00 m	16.67%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-36)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	2 Jul., '01 ~ 6 Jul., '01 16 Jul., '01 ~ 16 Jul., '01	4.25	4.25	—	26	42.5
Drilling	6 Jul., '01 ~ 9 Jul., '01 16 Jul., '01 ~ 16 Jul., '01	3.50	Drilling : 3.50	—	21.5	40
			Accident: 0.00	—	—	—
Dismount	9 Jul., '01 ~ 9 Jul., '01 16 Jul., '01 ~ 16 Jul., '01	0.25	0.25	—	1.5	2.5
Total	2 Jul., '01 ~ 16 Jul., '01	8.00	8.00	—	49	2.5
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			6.00 m	
Prolongation	11.00 m	Core length			45.00 m	
Effective length	51.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	21.0 hrs	36.2%	14.6%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	37.0 hrs	63.8%	25.7%	0 - 6.0	None core	None core
Recovery from accident	—	—	—	6.0 - 10.0	100.0	100.0
Subtotal	58.0 hrs	100%	40.3%	20.0 - 30.0	100.0	100.0
Preparation/setting up	65.0 hrs	—	45.1%	30.0 - 40.0	100.0	100.0
Dismount/mobilization	5.0 hrs	—	3.5%	40.0 - 50.0	100.0	100.0
Transportation of water	16.0 hrs	—	11.1%	50.0 - 51.0	100.0	100.0
Others				Efficiency		
Total	144.0 hrs	—	100%	Effective length / Working drilling days = 51.00m/3.5 days = 14.57 m/d		
				Effective length / Total drilling shifts = = 51.00m/7 shifts = 7.29 m/shift		
Drilling length by diameter						
Bit diameter	190mm ϕ	92mm ϕ				Total
Drilling length	20.00 m	31.00 m				51.00 m
Core length	14.00 m	28.00 m				42.00 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
200mm ϕ	7.00 m	13.73%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBK-37)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	9 Jul., '01 ~ 9 Jul., '01 15 Jul., '01 ~ 15 Jul., '01	0.25	0.25	—	1	2.5
Drilling	9 Jul., '01 ~ 10 Jul., '01 15 Jul., '01 ~ 15 Jul., '01	2.50	Drilling : 2.50	—	14	25
			Accident: 0.00	—	—	—
Dismount	1 Jul., '01 ~ 10 Jul., '01 15 Jul., '01 ~ 15 Jul., '01	0.25	0.25	—	1	2.5
Total	9 Jul., '01 ~ 15 Jul., '01	3.00	3.00	—	16	30
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			6.00 m	
Prolongation	8.00 m	Core length			42.00 m	
Effective length	48.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	24.0 hrs	60.0%	40.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	16.0 hrs	40.0%	26.7%	0 - 6.0	None core	None core
Recovery from accident	—	—	—	6.0 - 10.0	100.0	100.0
Subtotal	40.0 hrs	100%	66.7%	20.0 - 30.0	100.0	100.0
Preparation/setting up	5.0 hrs	—	8.3%	30.0 - 40.0	100.0	100.0
Dismount/mobilization	3.0 hrs	—	5.0%	40.0 - 48.0	100.0	100.0
Transportation of water	12.0 hrs	—	20.0%	Efficiency		
Others				Effective length / Working drilling days		
				= 48.00m/2.5 days = 19.20 m/d		
				Effective length / Total drilling shifts =		
Total	60.0 hrs	—	100%	= 48.00m/5 shifts = 9.6 m/shift		
Drilling length by diameter						
Bit diameter	190mm ϕ	92mm ϕ				Total
Drilling length	29.50 m	18.50 m				48.00 m
Core length	20.50 m	18.00 m				38.50 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
200mm ϕ	10.00 m	20.83%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-1)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	10 Aug., '01 ~ 10 Aug., '01	0.250	0.250	—	1	2.5
Drilling	10 Aug., '01 ~ 10 Aug., '01	0.625	Drilling : 0.625	—	2	6.25
			Accident: 0.000	—	—	—
Dismount	10 Aug., '01 ~ 10 Aug., '01	0.125	0.125	—	1	1.25
Total	10 Aug., '01 ~ 10 Aug., '01	1.000	1.000	—	4	10
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			11.00 m	
Prolongation	0.00 m	Core length			29.00 m	
Effective length	40.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	9.0 hrs	75.0%	45.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	3.0 hrs	25.0%	15.0%	0 - 11.0	None core	None core
Recovery from accident	—	—	—	11.0 - 20.0	100.0	100.0
Subtotal	12.0 hrs	100%	60.0%	20.0 - 30.0	100.0	100.0
Preparation/setting up	2.0 hrs	—	10.0%	30.0 - 40.0	100.0	100.0
Dismount/mobilization	2.0 hrs	—	10.0%			
Transportation of water	4.0 hrs	—	20.0%	Efficiency		
Others				Effective length / Working drilling days		
				= 40.00m/0.625 days = 64.00m/d		
				Effective length / Total drilling shifts =		
Total	20.0 hrs	—	100%	= 40.00m/1.25 shifts = 32.00 m/shift		
Drilling length by diameter						
Bit diameter	4"TB	92mm ϕ				Total
Drilling length	11.00 m	29.00 m				40.00 m
Core length	0.00 m	28.25 m				28.25 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm ϕ	7.00 m	17.50%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-2)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	8 Aug., '01 ~ 8 Aug., '01	0.250	0.250	—	1	2.5
Drilling	8 Aug., '01 ~ 8 Aug., '01	0.625	Drilling : 0.625	—	2	6.25
			Accident: 0.000	—	—	—
Dismount	8 Aug., '01 ~ 8 Aug., '01	0.125	0.125	—	1	1.25
Total	8 Aug., '01 ~ 8 Aug., '01	1.000	1.000	—	4	10
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			10.00 m	
Prolongation	0.50 m	Core length			30.50 m	
Effective length	40.50 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	9.0 hrs	75.0%	45.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	3.0 hrs	25.0%	15.0%	0 - 10.0	None core	None core
Recovery from accident	—	—	—	10.0 - 20.0	100.0	100.0
Subtotal	12.0 hrs	100%	60.0%	20.0 - 30.0	100.0	100.0
Preparation/setting up	2.0 hrs	—	10.0%	30.0 - 40.0	100.0	100.0
Dismount/mobilization	2.0 hrs	—	10.0%	40.0 - 40.5	100.0	100.0
Transportation of water	4.0 hrs	—	20.0%	Efficiency		
Others				Effective length / Working drilling days		
				= 40.50m/0.625 days = 64.80 m/d		
				Effective length / Total drilling shifts =		
Total	20.0 hrs	—	100%	= 40.50m/1.25 shifts = 32.40 m/shift		
Drilling length by diameter						
Bit diameter	4" TB	92mm ϕ				Total
Drilling length	10.00 m	30.50 m				40.50 m
Core length	0.00 m	29.90 m				29.90 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm ϕ	10.00 m	24.69%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-3)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	9 Aug., '01 ~ 9 Aug., '01	0.250	0.250	—	1	2.5
Drilling	9 Aug., '01 ~ 9 Aug., '01	0.625	Drilling : 0.625	—	2	6.25
			Accident: 0.000	—	—	—
Dismount	9 Aug., '01 ~ 9 Aug., '01	0.125	0.125	—	1	1.25
Total	9 Aug., '01 ~ 9 Aug., '01	1.000	1.000	—	4	10
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			12.00 m	
Prolongation	-5.00 m	Core length			23.00 m	
Effective length	35.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	9.0 hrs	75.0%	45.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	3.0 hrs	25.0%	15.0%	0 - 12.0	None core	None core
Recovery from accident	-	-	-	12.0 - 20.0	100.0	100.0
Subtotal	12.0 hrs	100%	60.0%	20.0 - 30.0	100.0	100.0
Preparation/setting up	2.0 hrs	-	10.0%	30.0 - 35.0	100.0	100.0
Dismount/mobilization	2.0 hrs	-	10.0%			
Transportation of water	4.0 hrs	-	20.0%	Efficiency		
Others				Effective length / Working drilling days		
				= 35.00m/0.625 days = 56.00 m/d		
				Effective length / Total drilling shifts =		
Total	20.0 hrs	-	100%	= 35.00m/1.25 shifts = 28.00 m/shift		
Drilling length by diameter						
Bit diameter	4"TB	92mm φ				Total
Drilling length	12.00 m	23.00 m				35.00 m
Core length	0.00 m	22.75 m				22.75 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm φ	12.00 m	34.29%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-4)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	11 Aug., '01 ~ 11 Aug., '01	0.250	0.250	—	1	2.5
Drilling	11 Aug., '01 ~ 11 Aug., '01	0.625	Drilling : 0.625	—	2	6.25
			Accident: 0.000	—	—	—
Dismount	11 Aug., '01 ~ 11 Aug., '01	0.125	0.125	—	1	1.25
Total	11 Aug., '01 ~ 11 Aug., '01	1.000	1.000	—	4	10
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			16.00 m	
Prolongation	-9.00 m	Core length			15.00 m	
Effective length	31.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	10.0 hrs	76.9%	50.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	3.0 hrs	23.1%	15.0%	0 - 16.0	None core	None core
Recovery from accident	-	-	-	16.0 - 20.0	100.0	100.0
Subtotal	13.0 hrs	100%	65.0%	20.0 - 30.0	100.0	100.0
Preparation/setting up	1.0 hrs	-	5.0%	30.0 - 31.0	100.0	100.0
Dismount/mobilization	2.0 hrs	-	10.0%			
Transportation of water	4.0 hrs	-	20.0%	Efficiency		
Others				Effective length / Working drilling days		
				= 31.00m/0.625 days = 49.60 m/d		
				Effective length / Total drilling shifts =		
Total	20.0 hrs	-	100%	= 31.00m/1.25 shifts = 24.80 m/shift		
Drilling length by diameter						
Bit diameter	4"TB	92mm ϕ				Total
Drilling length	16.00 m	15.00 m				31.00 m
Core length	0.00 m	14.50 m				14.50 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm ϕ	16.00 m	51.61%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-5)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	29 Jul., '01 ~ 29 Jul., '01	0.250	0.250	—	1	2.5
Drilling	29 Jul., '01 ~ 30 Jul., '01	0.625	Drilling : 0.625	—	2	6.25
			Accident: 0.000	—	—	—
Dismount	30 Jul., '01 ~ 30 Jul., '01	0.125	0.125	—	1	1.25
Total	29 Jul., '01 ~ 30 Jul., '01	1.000	1.000	—	4	10
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			12.00 m	
Prolongation	-8.00 m	Core length			20.00 m	
Effective length	32.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	7.0 hrs	70.0%	35.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	3.0 hrs	30.0%	15.0%	0 - 12.0	None core	None core
Recovery from accident	—	—	—	12.0 - 20.0	100.0	100.0
Subtotal	10.0 hrs	100%	50.0%	20.0 - 30.0	100.0	100.0
Preparation/setting up	3.0 hrs	—	15.0%	30.0 - 32.0	100.0	100.0
Dismount/mobilization	3.0 hrs	—	15.0%			
Transportation of water	4.0 hrs	—	20.0%	Efficiency		
Others				Effective length / Working drilling days		
				= 32.00m/0.625 days = 51.20 m/d		
				Effective length / Total drilling shifts =		
Total	20.0 hrs	—	100%	= 32.00m/1.25 shifts = 25.60 m/shift		
Drilling length by diameter						
Bit diameter	4"TB	92mm ϕ				Total
Drilling length	12.00 m	20.00 m				32.00 m
Core length	0.00 m	19.75 m				19.75 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm ϕ	12.00 m	37.50%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-6)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	28 Jul., '01 ~ 28 Jul., '01	0.250	0.250	—	1	2.5
Drilling	28 Jul., '01 ~ 29 Jul., '01	0.875	Drilling : 0.875	—	4	8.75
			Accident: 0.000	—	—	—
Dismount	29 Jul., '01 ~ 29 Jul., '01	0.125	0.125	—	1	1.25
Total	28 Jul., '01 ~ 29 Jul., '01	1.250	1.250	—	6	12.5
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			14.00 m	
Prolongation	2.00 m	Core length			28.00 m	
Effective length	42.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	8.0 hrs	61.5%	33.4%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	5.0 hrs	38.5%	20.8%	0 - 14.0	None core	None core
Recovery from accident	—	—	—	14.0 - 20.0	100.0	100.0
Subtotal	13.0 hrs	100%	54.2%	20.0 - 30.0	100.0	100.0
Preparation/setting up	2.0 hrs	—	8.3%	30.0 - 40.0	100.0	100.0
Dismount/mobilization	5.0 hrs	—	20.8%	40.0 - 42.0	100.0	100.0
Transportation of water	4.0 hrs	—	16.7%	Efficiency		
Others				Effective length / Working drilling days		
				= 42.00m/0.875 days = 48.00 m/d		
				Effective length / Total drilling shifts =		
Total	24.0 hrs	—	100%	= 42.00m/1.75 shifts = 24.00 m/shift		
Drilling length by diameter						
Bit diameter	4"TB	92mm φ				Total
Drilling length	14.00 m	28.00 m				42.00 m
Core length	0.00 m	24.85 m				24.85 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm φ	0.00 m	0.00%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-7)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	27 Jul., '01 ~ 27 Jul., '01	0.250	0.250	—	1	2.5
Drilling	27 Jul., '01 ~ 27 Jul., '01	0.625	Drilling : 0.625	—	2	6.25
			Accident: 0.000	—	—	—
Dismount	27 Jul., '01 ~ 27 Jul., '01	0.125	0.125	—	1	1.25
Total	27 Jul., '01 ~ 27 Jul., '01	1.000	1.000	—	4	10
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			12.00 m	
Prolongation	-7.00 m	Core length			21.00 m	
Effective length	33.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	9.0 hrs	75.0%	45.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	3.0 hrs	25.0%	15.0%	0 - 12.0	None core	None core
Recovery from accident	—	—	—	12.0 - 20.0	100.0	100.0
Subtotal	12.0 hrs	100%	60.0%	20.0 - 30.0	100.0	100.0
Preparation/setting up	2.0 hrs	—	10.0%	30.0 - 32.0	100.0	100.0
Dismount/mobilization	2.0 hrs	—	10.0%			
Transportation of water	4.0 hrs	—	20.0%	Efficiency		
Others				Effective length / Working drilling days		
				= 33.00m/0.625 days = 52.80 m/d		
				Effective length / Total drilling shifts =		
Total	20.0 hrs	—	100%	= 33.00m/1.25 shifts = 26.40 m/shift		
Drilling length by diameter						
Bit diameter	4"TB	92mm ϕ				Total
Drilling length	12.00 m	21.00 m				33.00 m
Core length	0.00 m	18.95 m				18.95 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm ϕ	12.00 m	36.36%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-8)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	26 Jul., '01 ~ 26 Jul., '01	0.250	0.250	—	1	2.5
Drilling	26 Jul., '01 ~ 26 Jul., '01	0.625	Drilling : 0.625	—	2	6.25
			Accident: 0.000	—	—	—
Dismount	26 Jul., '01 ~ 26 Jul., '01	0.125	0.125	—	1	1.25
Total	26 Jul., '01 ~ 26 Jul., '01	1.000	1.000	—	4	10
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			12.00 m	
Prolongation	-9.50 m	Core length			18.50 m	
Effective length	30.50 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	8.0 hrs	72.7%	40.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	3.0 hrs	27.3%	15.0%	0 - 12.0	None core	None core
Recovery from accident	-	-	-	12.0 - 20.0	100.0	100.0
Subtotal	11.0 hrs	100%	55.0%	20.0 - 30.0	100.0	100.0
Preparation/setting up	2.0 hrs	-	10.0%	30.0 - 30.5	100.0	100.0
Dismount/mobilization	3.0 hrs	-	15.0%			
Transportation of water	4.0 hrs	-	20.0%	Efficiency		
Others				Effective length / Working drilling days		
				= 30.50m/0.625 days = 48.80 m/d		
				Effective length / Total drilling shifts =		
Total	20.0 hrs	-	100%	= 30.50m/1.25 shifts = 24.40 m/shift		
Drilling length by diameter						
Bit diameter	4"TB	92mm ϕ				Total
Drilling length	12.00 m	18.50 m				30.50 m
Core length	0.00 m	18.50 m				18.50 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm ϕ	12.00 m	39.34%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-9)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	30 Jul., '01 ~ 3 Aug., '01	2.75	2.75	—	15.5	26.25
Drilling	3 Aug., '01 ~ 4 Aug., '01	1.00	Drilling : 1.00	—	7	10
			Accident: 0.00	—	—	—
Dismount	4 Aug., '01 ~ 4 Aug., '01	0.25	0.25	—	1.5	1.25
Total	30 Jul., '01 ~ 4 Aug., '01	4.00	4.00	—	24	37.5
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			11.00 m	
Prolongation	-11.00 m	Core length			18.00 m	
Effective length	29.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	10.0 hrs	20.4%	15.6%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	39.0 hrs	79.6%	60.9%	0 - 11.0	None core	None core
Recovery from accident	-	-	-	11.0 - 20.0	100.0	100.0
Subtotal	49.0 hrs	100%	76.5%	20.0 - 29.0	100.0	100.0
Preparation/setting up	3.0 hrs	-	4.7%			
Dismount/mobilization	8.0 hrs	-	12.5%			
Transportation of water	4.0 hrs	-	6.3%	Efficiency		
Others				Effective length / Working drilling days		
				= 29.00m/1 days = 29.00 m/d		
				Effective length / Total drilling shifts =		
Total	64.0 hrs	-	100%	= 29.00m/2 shifts = 14.5 m/shift		
Drilling length by diameter						
Bit diameter	4" TB	92mm ϕ				Total
Drilling length	11.00 m	18.00 m				29.00 m
Core length	0.00 m	16.45 m				16.45 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm ϕ	11.00 m	37.93%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-10)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	5 Aug., '01 ~ 5 Aug., '01	0.250	0.250	—	1	2.5
Drilling	5 Aug., '01 ~ 6 Aug., '01	1.625	Drilling : 1.625	—	6	16.25
			Accident: 0.000	—	—	—
Dismount	6 Aug., '01 ~ 6 Aug., '01	0.125	0.125	—	1	1.25
Total	5 Aug., '01 ~ 6 Aug., '01	2.000	2.000	—	8	20
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			11.00 m	
Prolongation	-15.00 m	Core length			14.00 m	
Effective length	25.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	10.0 hrs	38.5%	25.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	16.0 hrs	61.5%	40.0%	0 - 11.0	None core	None core
Recovery from accident	-	-	-	11.0 - 20.0	100.0	100.0
Subtotal	26.0 hrs	100%	65.0%	20.0 - 25.0	100.0	100.0
Preparation/setting up	2.0 hrs	-	5.0%			
Dismount/mobilization	4.0 hrs	-	10.0%			
Transportation of water	8.0 hrs	-	20.0%			
Others						
Total	40.0 hrs	-	100%	Efficiency		
				Effective length / Working drilling days		
				= 25.00m/1.625 days = 15.38 m/d		
				Effective length / Total drilling shifts =		
				= 25.00m/3.25 shifts = 7.69 m/shift		
Drilling length by diameter						
Bit diameter	4"TB	92mm ϕ				Total
Drilling length	11.00 m	14.00 m				25.00 m
Core length	0.00 m	13.65 m				13.65 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm ϕ	11.00 m	44.00%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-11)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	7 Aug., '01 ~ 7 Aug., '01	0.250	0.250	—	1	2.5
Drilling	7 Aug., '01 ~ 7 Aug., '01	0.625	Drilling : 0.625	—	2	6.25
			Accident: 0.000	—	—	—
Dismount	7 Aug., '01 ~ 7 Aug., '01	0.125	0.125	—	1	1.25
Total	7 Aug., '01 ~ 7 Aug., '01	1.000	1.000	—	4	10
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			10.00 m	
Prolongation	-5.00 m	Core length			25.00 m	
Effective length	35.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	9.0 hrs	75.0%	45.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	3.0 hrs	25.0%	15.0%	0 - 10.0	None core	None core
Recovery from accident	-	-	-	10.0 - 20.0	100.0	100.0
Subtotal	12.0 hrs	100%	60.0%	20.0 - 30.0	100.0	100.0
Preparation/setting up	2.0 hrs	-	10.0%	30.0 - 35.0	100.0	100.0
Dismount/mobilization	2.0 hrs	-	10.0%			
Transportation of water	4.0 hrs	-	20.0%	Efficiency		
Others				Effective length / Working drilling days		
				= 35.00m/0.625 days = 56.00 m/d		
				Effective length / Total drilling shifts =		
Total	20.0 hrs	-	100%	= 35.00m/1.25 shifts = 28.00 m/shift		
Drilling length by diameter						
Bit diameter	4"TB	92mm ϕ				Total
Drilling length	10.00 m	25.50 m				35.50 m
Core length	0.00 m	23.85 m				23.85 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm ϕ	10.00 m	28.57%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-12)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	24 Jul., '01 ~ 24 Jul., '01	0.250	0.250	—	2	2
Drilling	24 Jul., '01 ~ 25 Jul., '01	1.375	Drilling : 1.375	—	3.5	12.75
			Accident: 0.000	—	—	—
Dismount	25 Jul., '01 ~ 25 Jul., '01	0.125	0.125	—	0.5	1.25
Total	24 Jul., '01 ~ 25 Jul., '01	1.750	1.750	—	6	16
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			9.00 m	
Prolongation	-1.00 m	Core length			30.00 m	
Effective length	39.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	12.0 hrs	54.5%	37.5%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	10.0 hrs	45.5%	31.3%	0 - 9.0	None core	None core
Recovery from accident	—	—	—	9.0 - 10.0	100.0	100.0
Subtotal	22.0 hrs	100%	68.8%	10.0 - 20.0	100.0	100.0
Preparation/setting up	2.0 hrs	—	6.3%	20.0 - 30.0	100.0	100.0
Dismount/mobilization	4.0 hrs	—	12.5%	30.0 - 39.0	100.0	100.0
Transportation of water	4.0 hrs	—	12.5%	Efficiency		
Others				Effective length / Working drilling days		
				= 39.00m/1.375 days = 28.36 m/d		
				Effective length / Total drilling shifts =		
Total	32.0 hrs	—	100%	= 39.00m/2.75 shifts = 14.18 m/shift		
Drilling length by diameter						
Bit diameter	4"TB	92mm φ				Total
Drilling length	9.00 m	30.00 m				39.00 m
Core length	0.00 m	30.00 m				30.00 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm φ	9.00 m	23.08%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-13)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	2 Jul., '01 ~ 6 Jul., '01	4.00	4.00	—	27	45
Drilling	6 Jul., '01 ~ 8 Jul., '01	2.25	Drilling : 2.25	—	11	22.5
			Accident: 0.00	—	—	—
Dismount	8 Jul., '01 ~ 8 Jul., '01	0.25	0.25	—	1	2.5
Total	2 Jul., '01 ~ 8 Jul., '01	6.50	6.50	—	39	70
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			8.00 m	
Prolongation	-6.00 m	Core length			26.00 m	
Effective length	34.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	19.0 hrs	50.0%	17.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	19.0 hrs	50.0%	17.0%	0 - 8.0	None core	None core
Recovery from accident	—	—	—	8.0 - 10.0	100.0	100.0
Subtotal	38.0 hrs	100%	34.0%	10.0 - 20.0	100.0	100.0
Preparation/setting up	64.0 hrs	—	57.1%	20.0 - 30.0	100.0	100.0
Dismount/mobilization	2.0 hrs	—	1.8%	30.0 - 34.0	100.0	100.0
Transportation of water	8.0 hrs	—	7.1%	Efficiency		
Others				Effective length / Working drilling days		
				= 34.00m/6.5 days = 5.23 m/d		
				Effective length / Total drilling shifts =		
Total	112.0 hrs	—	100%	= 34.00m/13 shifts = 2.62 m/shift		
Drilling length by diameter						
Bit diameter	190mm ϕ					Total
Drilling length	34.00 m					34.00 m
Core length	26.00 m					26.00 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
200mm ϕ	10.00 m	29.41%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-14)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	22 Jul., '01 ~ 22 Jul., '01	0.250	0.250	—	1	2.5
Drilling	22 Jul., '01 ~ 22 Jul., '01	0.625	Drilling : 0.625	—	2	6.25
			Accident: 0.000	—	—	—
Dismount	22 Jul., '01 ~ 22 Jul., '01	0.125	0.125	—	1	1.25
Total	22 Jul., '01 ~ 22 Jul., '01	1.000	1.000	—	4	10
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			9.00 m	
Prolongation	-3.00 m	Core length			28.00 m	
Effective length	37.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	8.0 hrs	72.7%	40.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	3.0 hrs	27.3%	15.0%	0 - 9.0	None core	None core
Recovery from accident	-	-	-	9.0 - 10.0	100.0	100.0
Subtotal	11.0 hrs	100%	55.0%	10.0 - 20.0	100.0	100.0
Preparation/setting up	2.0 hrs	-	10.0%	20.0 - 30.0	100.0	100.0
Dismount/mobilization	3.0 hrs	-	15.0%	30.0 - 37.0	100.0	100.0
Transportation of water	4.0 hrs	-	20.0%	Efficiency		
Others				Effective length / Working drilling days		
				= 37.00m/0.625 days = 59.20 m/d		
				Effective length / Total drilling shifts =		
Total	20.0 hrs	-	100%	= 37.00m/1.25 shifts = 29.60 m/shift		
Drilling length by diameter						
Bit diameter	4"TB	92mm φ				Total
Drilling length	9.00 m	28.00 m				37.00 m
Core length	0.00 m	27.35 m				27.35 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm φ	9.00 m	24.32%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-15)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	22 Jul., '01 ~ 22 Jul., '01	0.250	0.250	—	1	2.5
Drilling	22 Jul., '01 ~ 22 Jul., '01	1.625	Drilling : 1.625	—	6	16.25
			Accident: 0.000	—	—	—
Dismount	22 Jul., '01 ~ 22 Jul., '01	0.125	0.125	—	1	1.25
Total	22 Jul., '01 ~ 22 Jul., '01	2.000	2.000	—	8	20
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			7.00 m	
Prolongation	-7.00 m	Core length			26.00 m	
Effective length	33.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	10.0 hrs	38.5%	25.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	16.0 hrs	61.5%	40.0%	0 - 7.0	None core	None core
Recovery from accident	-	-	-	7.0 - 10.0	100.0	100.0
Subtotal	26.0 hrs	100%	65.0%	10.0 - 20.0	100.0	100.0
Preparation/setting up	2.0 hrs	-	5.0%	20.0 - 30.0	100.0	100.0
Dismount/mobilization	4.0 hrs	-	10.0%	30.0 - 33.0	100.0	100.0
Transportation of water	8.0 hrs	-	20.0%	Efficiency		
Others				Effective length / Working drilling days		
				= 33.00m/1.625 days = 20.31 m/d		
				Effective length / Total drilling shifts =		
Total	40.0 hrs	-	100%	= 33.00m/3.25 shifts = 10.15 m/shift		
Drilling length by diameter						
Bit diameter	4" TB	92mm ϕ				Total
Drilling length	7.00 m	26.00 m				33.00 m
Core length	0.00 m	25.80 m				25.80 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm ϕ	7.00 m	21.21%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-16)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	18 Jul., '01 ~ 18 Jul., '01	0.250	0.250	—	0.5	2.5
Drilling	18 Jul., '01 ~ 19 Jul., '01	1.125	Drilling : 1.125	—	4.25	11.25
			Accident: 0.000	—	—	—
Dismount	19 Jul., '01 ~ 19 Jul., '01	0.125	0.125	—	0.25	1.25
Total	18 Jul., '01 ~ 19 Jul., '01	1.500	1.500	—	5	15
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			9.00 m	
Prolongation	5.00 m	Core length			36.00 m	
Effective length	45.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	12.0 hrs	66.7%	40.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	6.0 hrs	33.3%	20.0%	0 - 9.0	None core	None core
Recovery from accident	—	—	—	9.0 - 10.0	100.0	100.0
Subtotal	18.0 hrs	100%	60.0%	10.0 - 20.0	100.0	100.0
Preparation/setting up	2.0 hrs	—	6.7%	20.0 - 30.0	100.0	100.0
Dismount/mobilization	4.0 hrs	—	13.3%	30.0 - 40.0	100.0	100.0
				40.0 - 45.0	100.0	100.0
Transportation of water	6.0 hrs	—	20.0%	Efficiency		
Others				Effective length / Working drilling days		
				= 45.00m/1.125 days = 40.00 m/d		
				Effective length / Total drilling shifts =		
Total	30.0 hrs	—	100%	= 45.00m/2.25 shifts = 20.00 m/shift		
Drilling length by diameter						
Bit diameter	4"TB	92mm ϕ				Total
Drilling length	9.00 m	36.00 m				45.00 m
Core length	0.00 m	33.35 m				33.35 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm ϕ	9.00 m	20.00%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-17)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	17 Jul., '01 ~ 17 Jul., '01	0.250	0.250	—	1	2.5
Drilling	17 Jul., '01 ~ 18 Jul., '01	1.125	Drilling : 1.125	—	5	11.25
			Accident: 0.000	—	—	—
Dismount	18 Jul., '01 ~ 18 Jul., '01	0.125	0.125	—	1	1.25
Total	17 Jul., '01 ~ 18 Jul., '01	1.500	1.500	—	7	15
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			9.00 m	
Prolongation	0.00 m	Core length			31.00 m	
Effective length	40.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	12.0 hrs	66.7%	40.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	6.0 hrs	33.3%	20.0%	0 - 9.0	None core	None core
Recovery from accident	—	—	—	9.0 - 10.0	100.0	100.0
Subtotal	18.0 hrs	100%	60.0%	10.0 - 20.0	100.0	100.0
Preparation/setting up	2.0 hrs	—	6.7%	20.0 - 30.0	100.0	100.0
Dismount/mobilization	4.0 hrs	—	13.3%	30.0 - 40.0	100.0	100.0
Transportation of water	6.0 hrs	—	20.0%	Efficiency		
Others				Effective length / Working drilling days		
				= 40.00m/1.125 days = 35.56 m/d		
				Effective length / Total drilling shifts =		
Total	30.0 hrs	—	100%	= 40.00m/2.25 shifts = 17.78 m/shift		
Drilling length by diameter						
Bit diameter	4"TB	92mm φ				Total
Drilling length	9.00 m	31.00 m				40.00 m
Core length	0.00 m	30.70 m				30.70 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm φ	9.00 m	22.50%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-18)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	2 Jul., '01 ~ 6 Jul., '01	4.00	4.00	—	29	45
Drilling	6 Jul., '01 ~ 7 Jul., '01	1.25	Drilling : 1.25	—	6	12.5
			Accident: 0.00	—	—	—
Dismount	7 Jul., '01 ~ 7 Jul., '01	0.25	0.25	—	1	2.5
Total	2 Jul., '01 ~ 7 Jul., '01	5.50	5.50	—	36	60
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			9.00 m	
Prolongation	0.50 m	Core length			31.50 m	
Effective length	40.50 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	16.0 hrs	80.0%	16.3%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	4.0 hrs	20.0%	4.1%	0 - 9.0	None core	None core
Recovery from accident	—	—	—	9.0 - 10.0	100.0	100.0
Subtotal	20.0 hrs	100%	20.4%	10.0 - 20.0	100.0	100.0
Preparation/setting up	68.0 hrs	—	69.4%	20.0 - 30.0	100.0	100.0
Dismount/mobilization	4.0 hrs	—	4.1%	30.0 - 40.0	100.0	100.0
				40.0 - 40.5	100.0	100.0
Transportation of water	6.0 hrs	—	6.1%	Efficiency		
Others				Effective length / Working drilling days		
				= 40.50m/1.25 days = 3.24 m/d		
				Effective length / Total drilling shifts =		
Total	98.0 hrs	—	100%	= 40.50m/2.5 shifts = 16.2 m/shift		
Drilling length by diameter						
Bit diameter	4" TB	92mm ϕ				Total
Drilling length	9.00 m	31.50 m				40.50 m
Core length	0.00 m	31.50 m				31.50 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm ϕ	9.00 m	22.22%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-19)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	9 Jul., '01 ~ 9 Jul., '01	0.25	0.25	—	1	2.5
Drilling	9 Jul., '01 ~ 9 Jul., '01	1.50	Drilling : 1.50	—	2	5
			Accident: 0.00	—	—	—
Dismount	10 Jul., '01 ~ 10 Jul., '01	0.25	0.25	—	1	2.5
Total	9 Jul., '01 ~ 10 Jul., '01	2.00	2.00	—	4	10
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			8.50 m	
Prolongation	-5.00 m	Core length			26.50 m	
Effective length	35.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	7.0 hrs	70.0%	43.8%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	3.0 hrs	30.0%	18.7%	0 - 8.5	None core	None core
Recovery from accident	-	-	-	8.5 - 10.0	100.0	100.0
Subtotal	10.0 hrs	100%	62.5%	10.0 - 20.0	100.0	100.0
Preparation/setting up	2.0 hrs	-	12.5%	20.0 - 30.0	100.0	100.0
Dismount/mobilization	4.0 hrs	-	25.0%	30.0 - 35.0	100.0	100.0
Transportation of water	0.0 hrs	-	0.0%	Efficiency		
Others				Effective length / Working drilling days		
				= 35.00m/2 days = 17.50 m/d		
				Effective length / Total drilling shifts =		
Total	16.0 hrs	-	100%	= 34.00m/4 shifts = 8.5 m/shift		
Drilling length by diameter						
Bit diameter	4" TB	92mm ϕ				Total
Drilling length	8.50 m	26.50 m				35.00 m
Core length	0.00 m	26.50 m				26.50 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm ϕ	9.00 m	25.71%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-20)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	10 Jul., '01 ~ 10 Jul., '01	0.250	0.250	—	1	2.5
Drilling	10 Jul., '01 ~ 11 Jul., '01	0.875	Drilling : 0.875	—	3.5	8.75
			Accident: 0.000	—	—	—
Dismount	11 Jul., '01 ~ 11 Jul., '01	0.125	0.125	—	1	1.25
Total	10 Jul., '01 ~ 11 Jul., '01	1.250	1.250	—	5.5	12.5
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			7.00 m	
Prolongation	3.00 m	Core length			36.00 m	
Effective length	43.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	8.0 hrs	57.1%	33.3%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	6.0 hrs	42.9%	25.0%	0 - 7.0	None core	None core
Recovery from accident	—	—	—	7.0 - 10.0	100.0	100.0
Subtotal	14.0 hrs	100%	58.3%	10.0 - 20.0	100.0	100.0
Preparation/setting up	2.0 hrs	—	8.3%	20.0 - 30.0	100.0	100.0
Dismount/mobilization	4.0 hrs	—	16.7%	30.0 - 40.0	100.0	100.0
				40.0 - 43.0	100.0	100.0
Transportation of water	4.0 hrs	—	16.7%	Efficiency		
Others				Effective length / Working drilling days		
				= 43.00m/0.875 days = 49.14 m/d		
				Effective length / Total drilling shifts =		
Total	24.0 hrs	—	100%	= 43.00m/1.75 shifts = 24.57 m/shift		
Drilling length by diameter						
Bit diameter	4"TB	92mm ϕ				Total
Drilling length	7.00 m	36.00 m				43.00 m
Core length	0.00 m	35.00 m				35.00 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm ϕ	7.00 m	16.28%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-21)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	10 Jul., '01 ~ 10 Jul., '01	0.25	0.25	—	1	2.5
Drilling	10 Jul., '01 ~ 11 Jul., '01	0.75	Drilling : 0.75	—	2.5	7.5
			Accident: 0.00	—	—	—
Dismount	11 Jul., '01 ~ 11 Jul., '01	0.25	0.25	—	1	2.5
Total	10 Jul., '01 ~ 11 Jul., '01	1.25	1.25	—	4.5	12.5
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			6.00 m	
Prolongation	-3.00 m	Core length			31.00 m	
Effective length	37.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	8.0 hrs	57.1%	33.3%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	6.0 hrs	42.9%	25.0%	0 - 7.0	None core	None core
Recovery from accident	—	—	—	7.0 - 10.0	100.0	100.0
Subtotal	14.0 hrs	100%	58.3%	10.0 - 20.0	100.0	100.0
Preparation/setting up	2.0 hrs	—	8.3%	20.0 - 30.0	100.0	100.0
Dismount/mobilization	4.0 hrs	—	16.7%	30.0 - 37.0	100.0	100.0
Transportation of water	4.0 hrs	—	16.7%	Efficiency		
Others				Effective length / Working drilling days		
				= 37.00m/0.75 days = 49.33 m/d		
				Effective length / Total drilling shifts =		
Total	24.0 hrs	—	100%	= 37.00m/1.5 shifts = 24.67 m/shift		
Drilling length by diameter						
Bit diameter	4" TB	92mm ϕ				Total
Drilling length	6.00 m	31.00 m				37.00 m
Core length	0.00 m	28.05 m				28.05 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm ϕ	7.00 m	18.92%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-22)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	12 Jul., '01 ~ 12 Jul., '01	0.25	0.25	—	1	2.5
Drilling	13 Jul., '01 ~ 13 Jul., '01	0.50	Drilling : 0.50	—	2	5
			Accident: 0.00	—	—	—
Dismount	13 Jul., '01 ~ 13 Jul., '01	0.25	0.25	—	1	2.5
Total	12 Jul., '01 ~ 13 Jul., '01	1.00	1.00	—	4	10
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			7.50 m	
Prolongation	-8.00 m	Core length			24.50 m	
Effective length	32.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	7.0 hrs	70.0%	35.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	3.0 hrs	30.0%	15.0%	0 - 7.5	None core	None core
Recovery from accident	—	—	—	7.5 - 10.0	100.0	100.0
Subtotal	10.0 hrs	100%	50.0%	10.0 - 20.0	100.0	100.0
Preparation/setting up	2.0 hrs	—	10.0%	20.0 - 30.0	100.0	100.0
Dismount/mobilization	4.0 hrs	—	20.0%	30.0 - 32.0	100.0	100.0
Transportation of water	4.0 hrs	—	20.0%	Efficiency		
Others				Effective length / Working drilling days		
				= 32.00m/0.5 days = 64.00 m/d		
				Effective length / Total drilling shifts =		
Total	20.0 hrs	—	100%	= 32.00m/1 shifts = 32.00 m/shift		
Drilling length by diameter						
Bit diameter	4"TB	92mm ϕ				Total
Drilling length	7.50 m	24.50 m				32.00 m
Core length	0.00 m	22.10 m				22.10 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm ϕ	8.00 m	25.00%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-23)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	13 Jul., '01 ~ 13 Jul., '01	0.250	0.250	—	1	2.5
Drilling	14 Jul., '01 ~ 14 Jul., '01	0.875	Drilling : 0.875	—	2.5	8.75
			Accident: 0.000	—	—	—
Dismount	14 Jul., '01 ~ 14 Jul., '01	0.125	0.125	—	1	1.25
Total	13 Jul., '01 ~ 14 Jul., '01	1.250	1.250	—	4.5	12.5
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			7.00 m	
Prolongation	0.00 m	Core length			33.00 m	
Effective length	40.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	9.0 hrs	64.3%	37.5%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	5.0 hrs	35.7%	20.8%	0 - 7.0	None core	None core
Recovery from accident	-	-	-	7.0 - 10.0	100.0	100.0
Subtotal	14.0 hrs	100%	58.3%	10.0 - 20.0	100.0	100.0
Preparation/setting up	2.0 hrs	-	8.3%	20.0 - 30.0	100.0	100.0
Dismount/mobilization	4.0 hrs	-	16.7%	30.0 - 40.0	100.0	100.0
Transportation of water	4.0 hrs	-	16.7%	Efficiency		
Others				Effective length / Working drilling days		
				= 40.00m/0.875 days = 45.71 m/d		
				Effective length / Total drilling shifts =		
Total	24.0 hrs	-	100%	= 40.00m/1.75 shifts = 22.86 m/shift		
Drilling length by diameter						
Bit diameter	4" TB	92mm ϕ				Total
Drilling length	7.00 m	33.00 m				40.00 m
Core length	0.00 m	32.15 m				32.15 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm ϕ	8.00 m	20.00%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-24)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	23 Jul., '01 ~ 23 Jul., '01	0.250	0.250	—	1	2.5
Drilling	23 Jul., '01 ~ 24 Jul., '01	0.875	Drilling : 0.875	—	4	8.75
			Accident: 0.000	—	—	—
Dismount	24 Jul., '01 ~ 24 Jul., '01	0.125	0.125	—	0.5	1.25
Total	23 Jul., '01 ~ 24 Jul., '01	1.250	1.250	—	5.5	10.25
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			7.00 m	
Prolongation	1.00 m	Core length			34.00 m	
Effective length	41.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	9.0 hrs	64.3%	37.5%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	5.0 hrs	35.7%	20.8%	0 - 7.0	None core	None core
Recovery from accident	—	—	—	7.0 - 10.0	100.0	100.0
Subtotal	14.0 hrs	100%	58.3%	10.0 - 20.0	100.0	100.0
Preparation/setting up	2.0 hrs	—	8.3%	20.0 - 30.0	100.0	100.0
Dismount/mobilization	4.0 hrs	—	16.7%	30.0 - 40.0	100.0	100.0
				40.0 - 41.0	100.0	100.0
Transportation of water	4.0 hrs	—	16.7%	Efficiency		
Others				Effective length / Working drilling days		
				= 41.00m/0.875 days = 46.86 m/d		
				Effective length / Total drilling shifts =		
Total	24.0 hrs	—	100%	= 41.00m/1.75 shifts = 23.43 m/shift		
Drilling length by diameter						
Bit diameter	4"TB	92mm ϕ				Total
Drilling length	7.00 m	34.00 m				41.00 m
Core length	0.00 m	33.65 m				33.65 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm ϕ	9.00 m	21.95%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKS-25)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	8 Jul., '01 ~ 8 Jul., '01	0.25	0.25	—	1.5	2.5
Drilling	8 Jul., '01 ~ 8 Jul., '01	0.75	Drilling : 0.75	—	2.5	7.5
			Accident: 0.00	—	—	—
Dismount	9 Jul., '01 ~ 9 Jul., '01	0.25	0.25	—	1.5	2.5
Total	8 Jul., '01 ~ 9 Jul., '01	1.25	1.25	—	5.5	12.5
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary				8.00 m
Prolongation	-6.00 m	Core length				26.00 m
Effective length	34.00 m	Core recovery				100.0 %
Working hours				Core recovery by each 10 meters		
Drilling	8.0 hrs	57.1%	33.3%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	6.0 hrs	42.9%	25.0%	0 - 8.0	None core	None core
Recovery from accident	—	—	—	8.0 - 10.0	100.0	100.0
Subtotal	14.0 hrs	100%	58.3%	10.0 - 20.0	100.0	100.0
Preparation/setting up	2.0 hrs	—	8.3%	20.0 - 30.0	100.0	100.0
Dismount/mobilization	4.0 hrs	—	16.7%	30.0 - 34.0	100.0	100.0
Transportation of water	4.0 hrs	—	16.7%	Efficiency		
Others				Effective length / Working drilling days		
				= 34.00m/0.75 days = 45.33 m/d		
				Effective length / Total drilling shifts =		
Total	24.0 hrs	—	100%	= 34.00m/1.5 shifts = 22.67 m/shift		
3						
Bit diameter	4"TB	92mm φ				Total
Drilling length	8.00 m	26.00 m				34.00 m
Core length	0.00 m	26.00 m				26.00 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm φ	7.40 m	21.76%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKN-1)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	21 Aug., '01 ~ 21 Aug., '01	0.25	0.25	—	1	1.25
Drilling	21 Aug., '01 ~ 23 Aug., '01	2.00	Drilling : 2.00	—	13	27.5
			Accident: 0.00	—	—	—
Dismount	23 Aug., '01 ~ 23 Aug., '01	0.25	0.25	—	1	1.25
Total	21 Aug., '01 ~ 23 Aug., '01	2.50	2.50	—	15	30
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			7.00 m	
Prolongation	27.00 m	Core length			60.00 m	
Effective length	67.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	18.0 hrs	56.2%	36.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	14.0 hrs	43.8%	28.0%	0 - 7.0	None core	None core
Recovery from accident	—	—	—	7.0 - 10.0	100.0	100.0
Subtotal	32.0 hrs	100%	64.0%	10.0 - 20.0	100.0	100.0
				20.0 - 30.0	100.0	100.0
				30.0 - 40.0	100.0	100.0
Preparation/setting up	4.0 hrs	—	8.0%	40.0 - 50.0	100.0	100.0
Dismount/mobilization	4.0 hrs	—	8.0%	50.0 - 60.0	100.0	100.0
				60.0 - 67.0	100.0	100.0
Transportation of water	10.0 hrs	—	20.0%	Efficiency		
Others				Effective length / Working drilling days		
				= 67.00m/2.125 days = 31.53 m/d		
				Effective length / Total drilling shifts =		
Total	50.0 hrs	—	100%	= 67.00m/4.25 shifts = 15.76 m/shift		
Drilling length by diameter						
Bit diameter	4" TB	92mm ϕ				Total
Drilling length	7.00 m	60.00 m				67.00 m
Core length	0.00 m	55.00 m				55.00 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm ϕ	7.00 m	10.45%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKN-2)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	23 Aug., '01 ~ 23 Aug., '01	0.250	0.250	—	1	2.5
Drilling	23 Aug., '01 ~ 25 Aug., '01	2.125	Drilling : 2.125	—	7	21.25
			Accident: 0.000	—	—	—
Dismount	25 Aug., '01 ~ 25 Aug., '01	0.125	0.125	—	1	1.25
Total	23 Aug., '01 ~ 25 Aug., '01	2.500	2.500	—	9	25
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			2.50 m	
Prolongation	30.00 m	Core length			67.50 m	
Effective length	70.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	20.0 hrs	55.6%	40.0%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	16.0 hrs	44.4%	32.0%	0 - 2.5	None core	None core
Recovery from accident	—	—	—	2.5 - 10.0	100.0	100.0
Subtotal	36.0 hrs	100%	72.0%	10.0 - 20.0	100.0	100.0
				20.0 - 30.0	100.0	100.0
Preparation/setting up	2.0 hrs	—	4.0%	30.0 - 40.0	100.0	100.0
				40.0 - 50.0	100.0	100.0
Dismount/mobilization	2.0 hrs	—	4.0%	50.0 - 60.0	100.0	100.0
				60.0 - 70.0	100.0	100.0
Transportation of water	10.0 hrs	—	20.0%	Efficiency		
Others				Effective length / Working drilling days		
				= 70.00m/2.125 days = 32.94 m/d		
				Effective length / Total drilling shifts =		
Total	50.0 hrs	—	100%	= 70.00m/4.25 shifts = 16.47 m/shift		
Drilling length by diameter						
Bit diameter	92mm ϕ					Total
Drilling length	70.00 m					70.00 m
Core length	68.95 m					68.95 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm ϕ	0.00 m	0.00%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKN-3)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	17 Aug., '01 ~ 17 Aug., '01	0.500	0.500	—	3	5
Drilling	17 Aug., '01 ~ 20 Aug., '01	3.375	Drilling : 3.375	—	12	33.75
			Accident: 0.000	—	—	—
Dismount	20 Aug., '01 ~ 20 Aug., '01	0.125	0.125	—	1	1.25
Total	17 Aug., '01 ~ 20 Aug., '01	4.000	4.000	—	16	40
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			4.00 m	
Prolongation	28.00 m	Core length			64.00 m	
Effective length	68.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	36.0 hrs	69.2%	47.4%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	16.0 hrs	30.8%	21.0%	0 - 4.0	None core	None core
Recovery from accident	—	—	—	4.0 - 10.0	100.0	100.0
Subtotal	52.0 hrs	100%	68.4%	10.0 - 20.0	100.0	100.0
				20.0 - 30.0	100.0	100.0
Preparation/setting up	4.0 hrs	—	5.3%	30.0 - 40.0	100.0	100.0
				40.0 - 50.0	100.0	100.0
Dismount/mobilization	8.0 hrs	—	10.5%	50.0 - 60.0	100.0	100.0
				60.0 - 68.0	100.0	100.0
Transportation of water	12.0 hrs	—	15.8%	Efficiency		
Others				Effective length / Working drilling days		
				= 68.00m/3.375 days = 20.15 m/d		
				Effective length / Total drilling shifts =		
Total	76.0 hrs	—	100%	= 68.00m/6.75 shifts = 10.07 m/shift		
Drilling length by diameter						
Bit diameter	92mm ϕ					Total
Drilling length	68.00 m					68.00 m
Core length	62.45 m					62.45 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm ϕ	5.00 m	7.35%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKN-4)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	15 Aug., '01 ~ 15 Aug., '01	0.250	0.250	—	1	2.5
Drilling	15 Aug., '01 ~ 16 Aug., '01	1.625	Drilling : 1.625	—	6	16.25
			Accident: 0.000	—	—	—
Dismount	16 Aug., '01 ~ 16 Aug., '01	0.125	0.125	—	1	1.25
Total	15 Aug., '01 ~ 16 Aug., '01	2.000	2.000	—	8	20
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			3.00 m	
Prolongation	20.00 m	Core length			57.00 m	
Effective length	60.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	16.0 hrs	59.3%	42.1%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	11.0 hrs	40.7%	28.9%	0 - 3.0	None core	None core
Recovery from accident	—	—	—	3.0 - 10.0	100.0	100.0
Subtotal	27.0 hrs	100%	71.0%	10.0 - 20.0	100.0	100.0
Preparation/setting up	2.0 hrs	—	5.3%	20.0 - 30.0	100.0	100.0
				30.0 - 40.0	100.0	100.0
Dismount/mobilization	3.0 hrs	—	7.9%	40.0 - 50.0	100.0	100.0
				50.0 - 60.0	100.0	100.0
Transportation of water	6.0 hrs	—	15.8%	Efficiency		
Others				Effective length / Working drilling days		
				= 60.00m/1.625 days = 36.92 m/d		
				Effective length / Total drilling shifts =		
Total	38.0 hrs	—	100%	= 60.00m/3.25 shifts = 18.46 m/shift		
Drilling length by diameter						
Bit diameter	4"TB	92mm φ				Total
Drilling length	3.00 m	57.00 m				60.00 m
Core length	0.00 m	54.05 m				54.05 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm φ	4.00 m	6.67%		100%		

Appendix 3-2 Miscellaneous Results of Individual Drillhole (MJBKN-5)

	Survey period		Breakdown of period		Total workers	
	Period	Total days	Working days	No working days	Engineers	Workers
Preparation	12 Aug., '01 ~ 12 Aug., '01	0.25	0.25	—	1	2.5
Drilling	12 Aug., '01 ~ 14 Aug., '01	2.00	Drilling : 2.00	—	7.5	20
			Accident: 0.00	—	—	—
Dismount	14 Aug., '01 ~ 14 Aug., '01	0.75	0.75	—	3.5	7.5
Total	12 Aug., '01 ~ 14 Aug., '01	3.00	3.00	—	12	30
Drilling Length						
Programmed length	40.00 m	Overburden, sand & gravel, Quarternary			10.00 m	
Prolongation	30.00 m	Core length			60.00 m	
Effective length	70.00 m	Core recovery			100.0 %	
Working hours				Core recovery by each 10 meters		
Drilling	25.0 hrs	62.5%	44.6%	Length (m)	Each (%)	Cumula. (%)
Supplemental drilling work	15.0 hrs	37.5%	26.8%	0 - 10.0	None core	None core
Recovery from accident	—	—	—	10.0 - 20.0	100.0	100.0
Subtotal	40.0 hrs	100%	71.4%	20.0 - 30.0	100.0	100.0
				30.0 - 40.0	100.0	100.0
				40.0 - 50.0	100.0	100.0
Preparation/setting up	2.0 hrs	—	3.6%	50.0 - 60.0	100.0	100.0
Dismount/mobilization	6.0 hrs	—	10.7%	60.0 - 70.0	100.0	100.0
Transportation of water	8.0 hrs	—	14.3%	Efficiency		
Others				Effective length / Working drilling days		
				= 70.00m/2 days = 35.00 m/d		
				Effective length / Total drilling shifts =		
Total	56.0 hrs	—	100%	= 70.00m/4 shifts = 17.50 m/shift		
Drilling length by diameter						
Bit diameter	4"TB	92mm φ				Total
Drilling length	10.00 m	60.00 m				70.00 m
Core length	0.00 m	56.65 m				56.65 m
Inserted casing pipes						
Inserted length by diameter		Inserted length / Drilling length		Casing recovery		
133mm φ	10.50 m	15.00%		100%		

Appendix 3-3 Progress Record of Drilling

Appendix 3-3 Progress Record of Drilling

Item of the survey	Quantity of works	2001				2002	
		June	July	August	September	January	January
Travel (Japan to Kazakhstan)		30 1					
Transportation of materials and preparation		30 1					
Drilling survey	No. 1 machine	2	9				
	No. 2 machine	2	6				
	No. 3 machine			28 31			
	total			25 25			
Dismount	No. 1 machine			29 1			
	No. 2 machine			31			
	No. 3 machine			25			
Travel (Kazakhstan to Japan)	No. 1				2	4	
	No. 2, 3				2	9	
Report making					26	4	
					10	31	

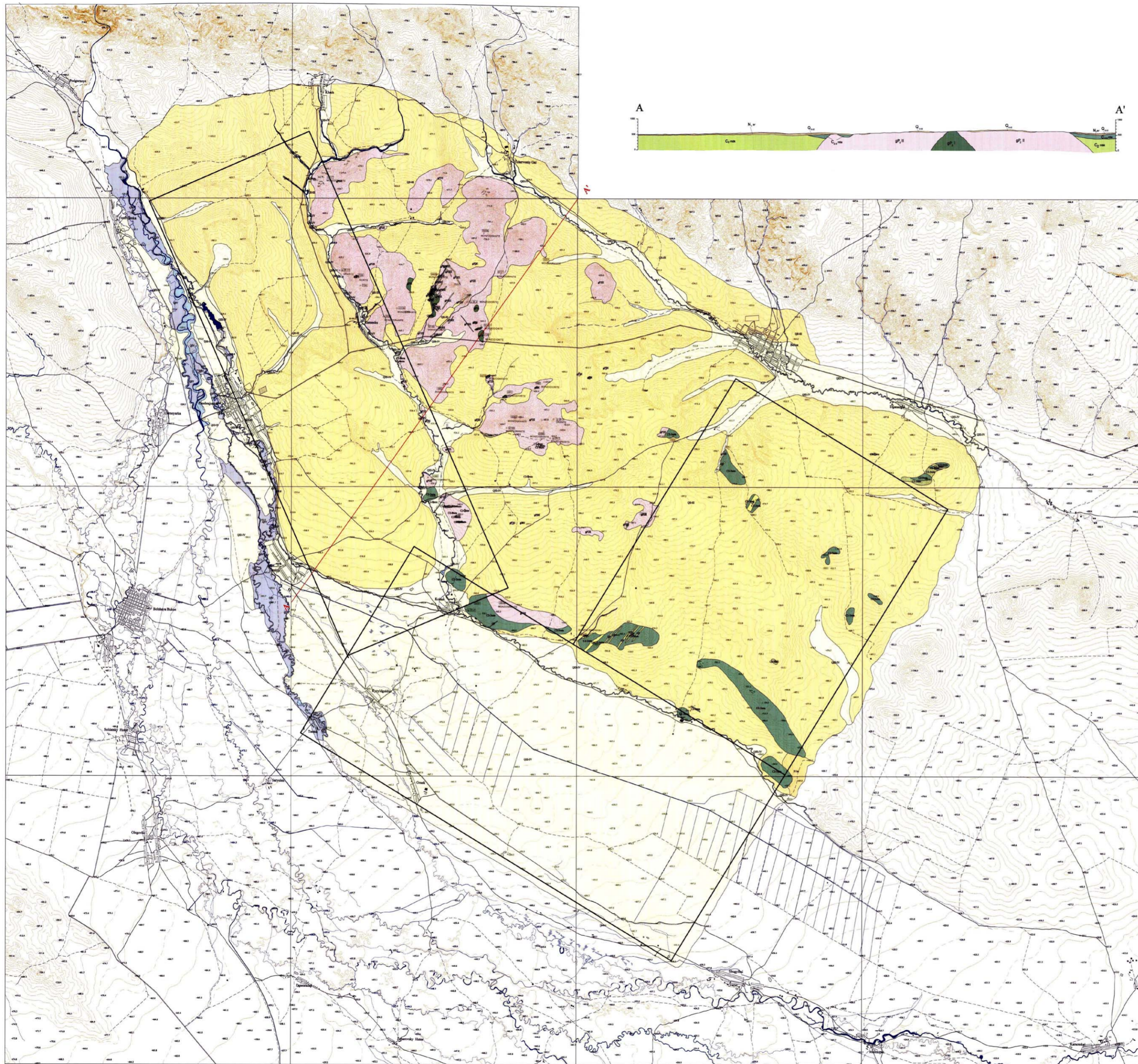
卷末資料

THE MINERAL EXPLORATION
IN
THE KOKPETINSKAYA AREA
THE REPUBLIC OF KAZAKHSTAN
(PHASE II)

PL.II-2-1(1) Geologic Structure and Cross Section



JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
JANUARY 2002



LEGEND

QUATERNARY	Q _v	RECENT PRAINAGE DEPOSIT Pale brownish gray sand, gravel.
	Q _{iv}	BACK SLOUGH DEPOSIT Gray sandy silt, sand, gravel.
	Q _{III-IV}	UPPER DEPOSIT Gray to pale brownish gray loam, silt, sand, pebble, cobble.
	Q _{II-III}	MIDDLE TO UPPER DEPOSIT Yellow to brown loam, silt, sand.
TERTIARY ARAL FORMATION	N _{1ar}	SANDY CLAY, CLAY SAND, SILTY CLAY. With interlayers of sand, pebble, cobble. Ilmenite sand concentration near basement.
MAITYUB FORMATION	C _{2-3mtc}	CONGLOMERATE, SANDSTONE, SHALE.
	C _{2-3mti}	ANDESITIC, OR BASALTIC LAVA FLOW.
	C _{2-3mta}	ANDESITIC, BASALTIC, OR DIABASIC AGGLOMERATE AND TUFF.
BUKON FORMATION	C _{2bk}	CONGLOMERATE, SANDSTONE, SILTSTONE, S.
KOKPETI FORMATION	C _{1v3-nkp1}	CONGLOMERATE, TUFFACEOUS SANDSTONE, SILTSTONE, SHALE.
PREOBRAZHEFSKIY BATHOLITH	gP ₂ I	GABBRO.
	gP ₂ II	GRANITOIDS (DIORITE, MONZONITE, GRANIT)
	gP ₂ III	APLITE, GRANODIORITE.
KARAKEL BATHOLITH	gKt	GRANODIORITE PORPHYRY.
	QP	QUARTZ PORPHYRY, FELSITE.
	80 45W	STRIKE AND DIP OF STRATA
	45W	STRIKE AND DIP OF MAJOR FRACTURES
	G034	LOCATION OF PETROGRAPHICAL SAMPLE



THE MINERAL EXPLORATION
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(PHASE II)

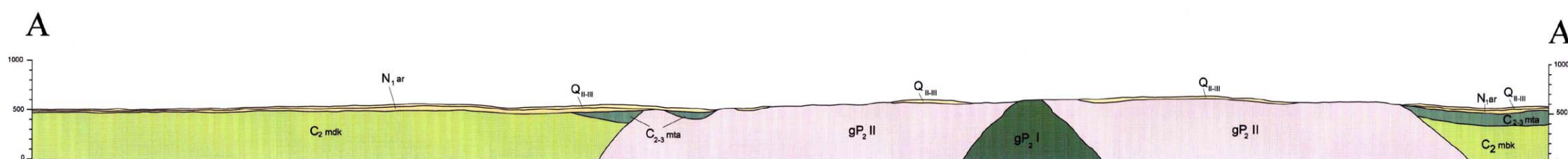
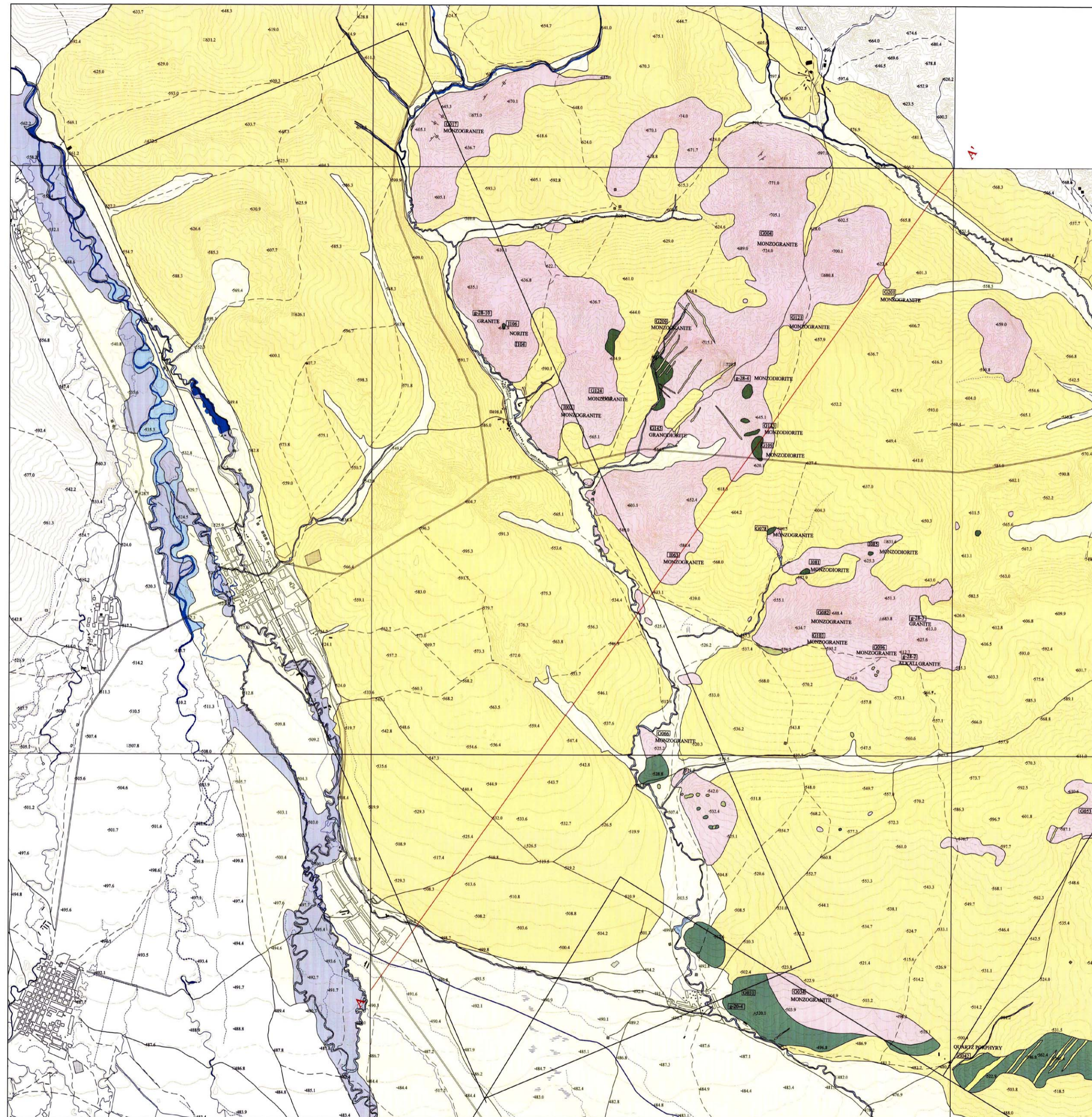
PL.II-2-1(2) Geologic Structure and Cross Section



JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
JANUARY 2002

LEGEND

QUATERNART	Q _v	RECENT PRAINAGE DEPOSIT Pole brownish gray sand,gravel.
	Q _{iv}	BACK SLOUGH DEPOSIT Gray sandy silt, sand, gravel.
	Q _{III-IV}	UPPER DEPOSIT Gray to pale brownish gray loam, silt,sand, pebble, cobble.
	Q _{II-III}	MIDDLE TO UPPER DEPOSIT Yellow to brown loam,silt,sand.
TERTIARY ARAL FORMATION	N _{1ar}	SANDY CLAY,CLAY SAND, SILTY CLAY. With interlayers of sand,pebble,cobble. Ilmenite sand concentration near basement.
MAITYUB FORMATION	C _{2-3mtc}	CONGLOMERATE,SANDSTONE,SHALE.
	C _{2-3mtf}	ANDESITIC,OR BASALTIC LAVA FLOW.
	C _{2-3mta}	ANDESITIC,BASALTIC,OR DIABASIC AGGLOMERATE AND TUFF.
BUKON FORMATION	C _{2bk}	CONGLOMERATE,SANDSTONE,SILTSTONE.S
	C _{1-3-nkp1}	CONGLOMERATE,TUFFACEOUS SANDSTON SILTSTONE,SHALE.
KOKPETI FORMATION	gP _{2I}	GABBRO.
	gP _{2II}	GRANITIDS (DIORITE,MONZONITE,GRANIT
	gP _{2III}	APLITE, GRANODIORITE.
PREOBRAZHEHSKIY BATHOLITH	gKt	GRANODIORITE PORPHYRY.
KARAOKEK BATHOLITH	QP	QUARTZ PORPHYRY,FELSITE.
	80 45W	STRIKE AND DIP OF STRATA
	45W	STRIKE AND DIP OF MAJOR FRACTURES
	○ G034	LOCATION OF PETROGRAPHICAL SAMPLE

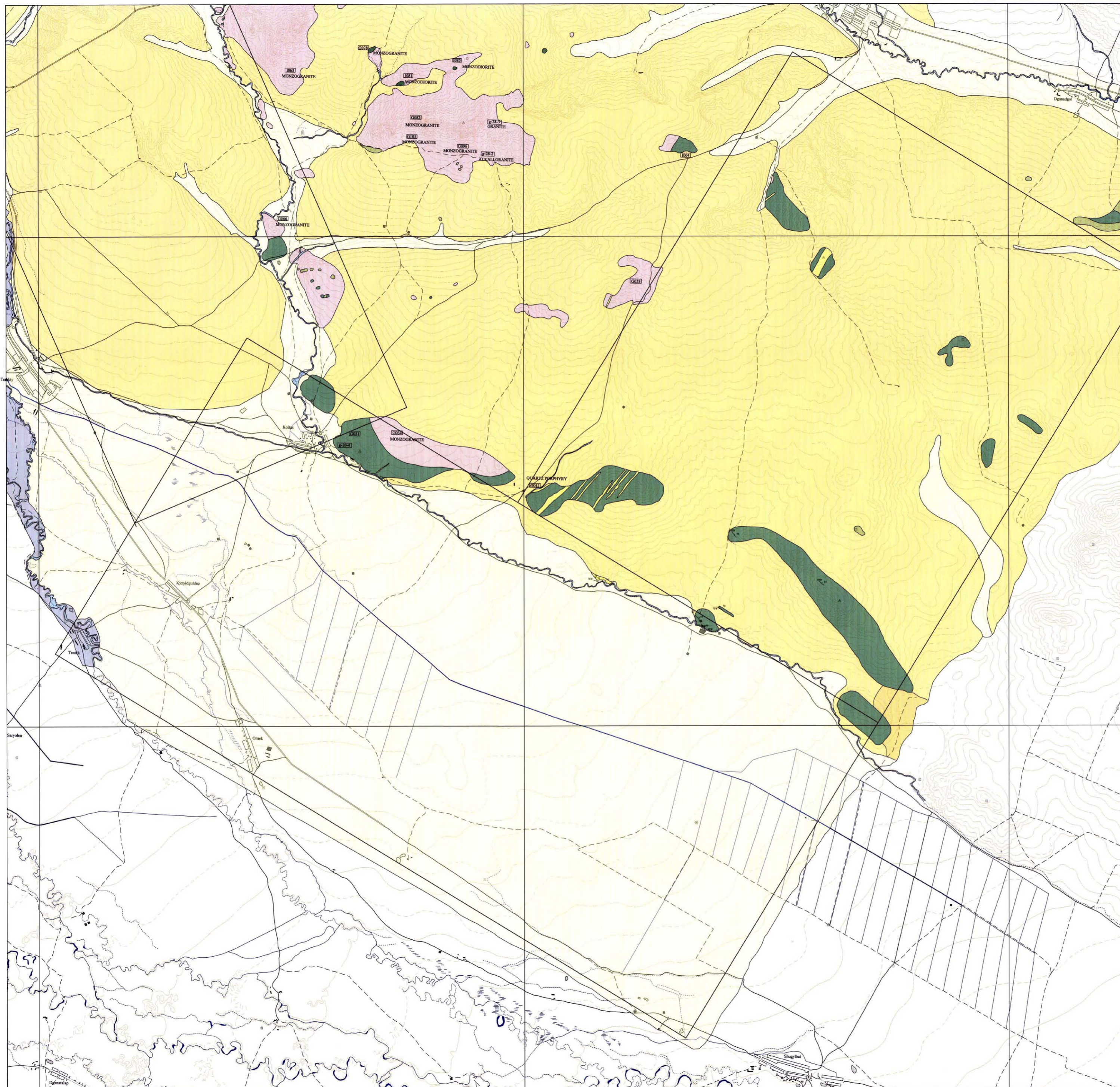


THE MINERAL EXPLORATION
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(PHASE II)

PL.II-2-1(3) Geologic Structure and Cross Section

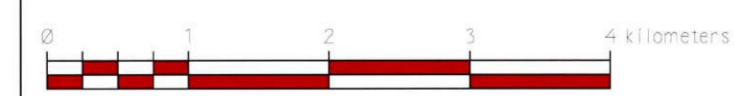


JAPAN INTERNATIONAL COOPERATION AGENCY
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JANUARY 2002



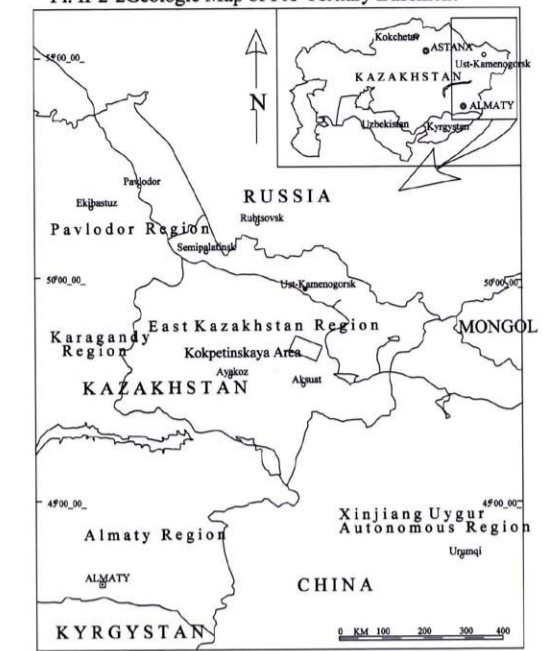
LEGEND

QUATERNARY	Q _v	RECENT PRANAGE DEPOSIT Pale brownish gray sand, gravel.
	Q _{iv}	BACK SLOUGH DEPOSIT Gray sandy silt, sand, gravel.
	Q _{iii-iv}	UPPER DEPOSIT Gray to pale brownish gray loam, silt, sand, pebble, cobble.
	Q _{ii-iii}	MIDDLE TO UPPER DEPOSIT Yellow to brown loam, silt, sand.
TERTIARY ARAL FORMATION	N _{ar}	SANDY CLAY, CLAY SAND, SILTY CLAY. With interlayers of sand, pebble, cobble. Limonite sand concentration near basement.
MAITYUB FORMATION	C _{2-3ms}	CONGLOMERATE, SANDSTONE, SHALE.
	C _{2-3ml}	ANDESITIC, OR BASALTIC LAVA FLOW.
CARBONIFEROUS	C _{2-3mb}	ANDESITIC, BASALTIC, OR DIABASIC AGGLOMERATE AND TUFF.
BUKON FORMATION	C _{2bk}	CONGLOMERATE, SANDSTONE, SILTSTONE, S.
KOKPETI FORMATION	C _{1k-1kp1}	CONGLOMERATE, TUFFACEOUS SANDSTONE, SILTSTONE, SHALE.
PREOBRAZHEVSKIY BATHOLITH	gP _{2I}	GABBRO.
	gP _{2II}	GRANITOID (DIORITE, MONZONITE, GRANIT)
	gP _{2III}	APLITE, GRANODIORITE.
KARAOKEL BATHOLITH	gKt	GRANODIORITE PORPHYRY.
	QP	QUARTZ PORPHYRY, FELSITE.
	80 45W	STRIKE AND DIP OF STRATA
	45W	STRIKE AND DIP OF MAJOR FRACTURES
	○ G034	LOCATION OF PETROGRAPHICAL SAMPLE



THE MINERAL EXPLORATION
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Pl. II-2-2 Geologic Map of Pre-Tertiary Basement



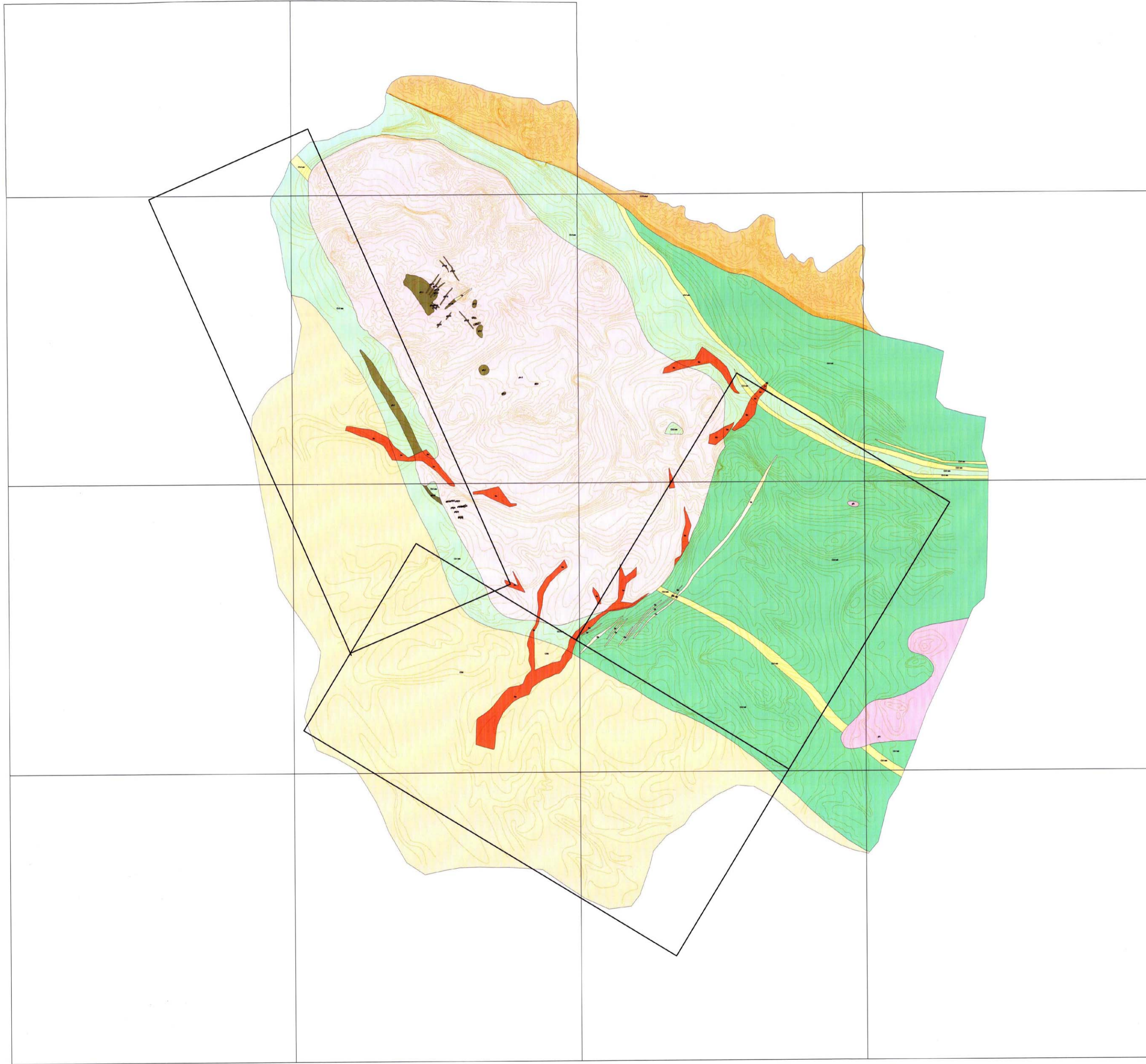
JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
JANUARY 2002

LEGEND

CARBONIFEROUS	MAITYUB FORMATION	C2-3 mtc	Conglomerate, sandstone, shale (partly contact metamorphosed to cordierite, biotite hornfels)
		C2-3 mtl	Andesitic, or basaltic lava flow, porphyritic
		C2-3 mta	Andesitic, basaltic, or diabasic agglomerate and tuff (partly contact metamorphosed to amphibole facies)
	BUKON FORMATION	C2bk	Conglomerate, sandstone, siltstone, shale
	KOKPETI FORMATION LOWER MEMBER	C1V3-nkp1	Conglomerate, tuffaceous sandstone, sandstone, siltstone, shale
PERMIAN TO JURASSIC	PREOBRAZHENSKIY BATHOLITH	gpz I	Gabbro
		gpz II	Granitoids (diorite, granodiorite, monzonite)
		gpz III	Albite, granodiorite
	KARAOVKEL BATHOLITH	gkt	Granodiorite porphyry
	Qp	Quartz porphyry, felsite	
	ilmen	Ilmenite placer deposit (over 100kg/m ³ ilmenite)	

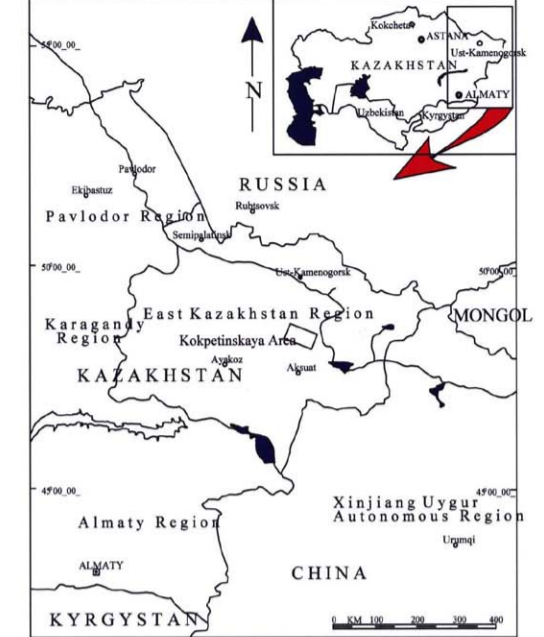
SYMBOLS

- Previous geochemical or ilmenite exploration drill hole without depth data available
- 528 Previous geochemical or ilmenite exploration drill hole with depth data
- Contour of paleo-topography with altitude above present sea level in meter
- 460
- 450
- 10.8 Measure point of magnetic susceptibility with value in x10⁻³ S.I.U.

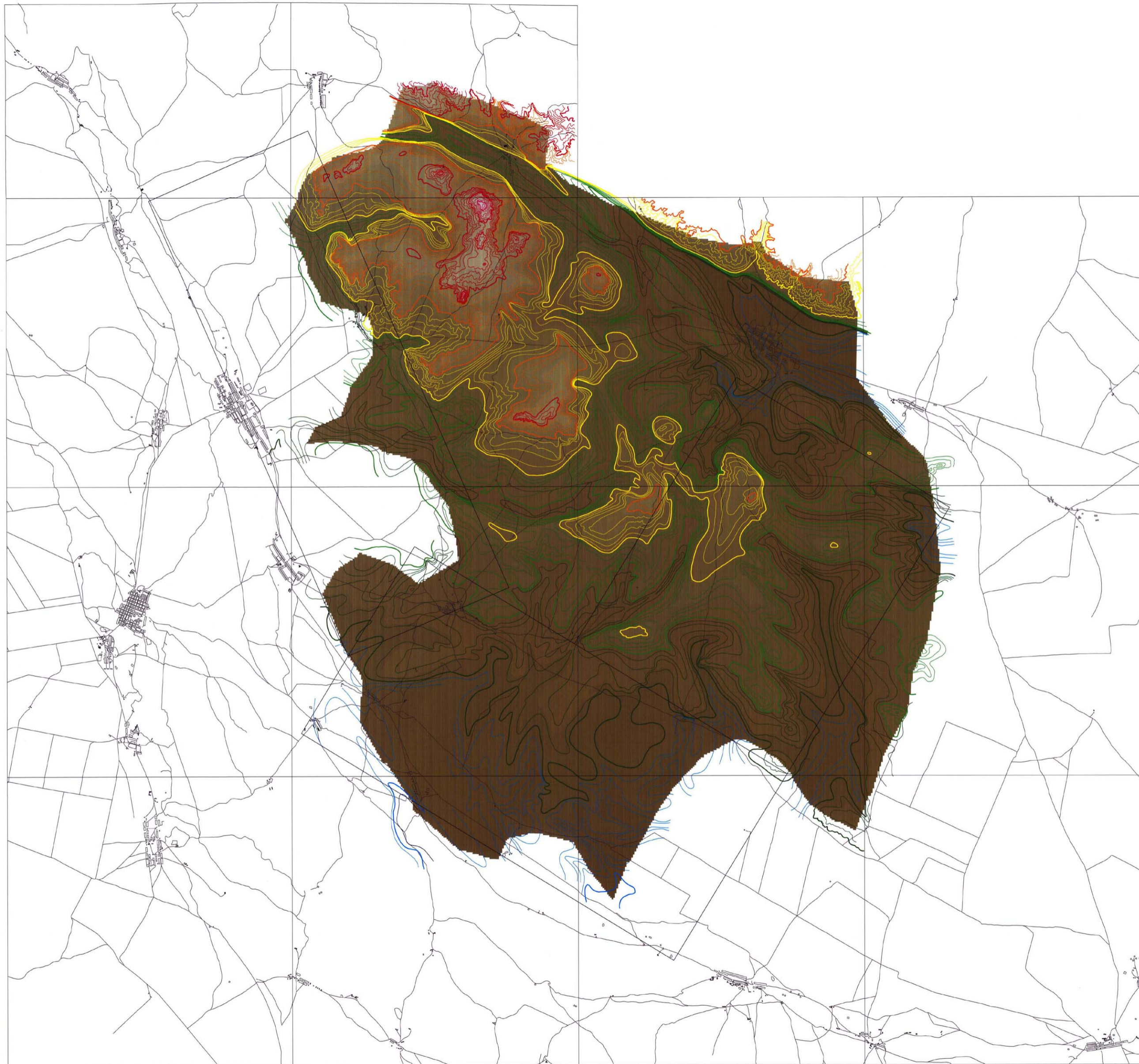


THE MINERAL EXPLORATION
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(PHASE II)










Pl. II-2-3 Structural Countour Map of Pre-Tertiary Basement



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JANUARY 2002



LEGEND

-  - 399
-  400 - 449
-  450 - 499
-  500 - 549
-  550 - 599
-  600 - 649
-  650 - 699
-  700 - 749
-  750 -

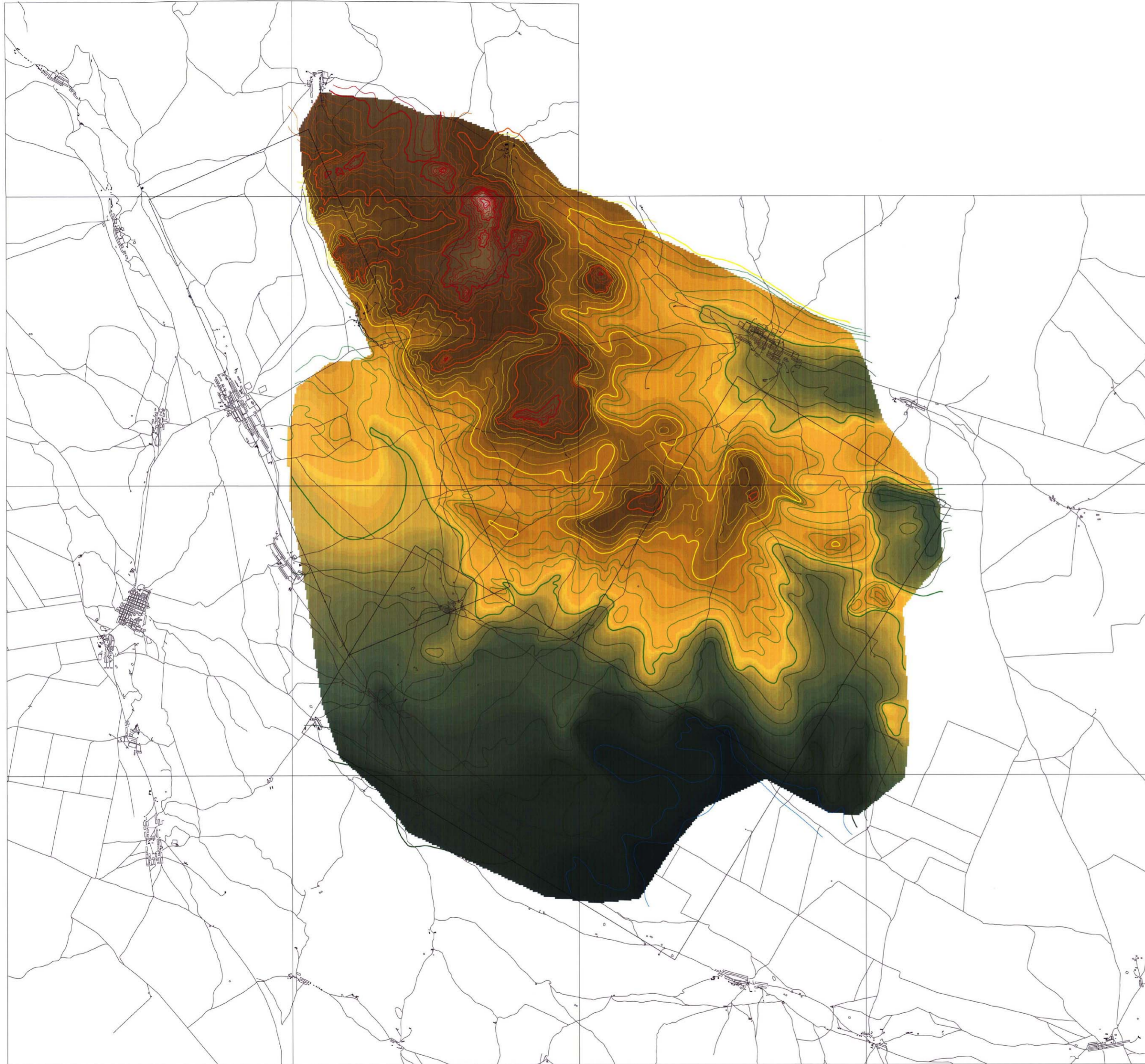


THE MINERAL EXPLORATION
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THE THE REPUBLIC OF KAZFKHSTAN
(PHASE II)

Pl. II-2-4 Structural Countour Map of Quarternary Basement



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JANUARY 2002



LEGEND

-  - 449
-  450 - 499
-  500 - 549
-  550 - 599
-  600 - 649
-  650 - 699
-  700 - 749
-  750 -

